

**IDAHO DEPARTMENT OF EDUCATION**  
**Public Schools Agenda – August 3, 2001**  
**10:15 – 12:30**

**North Idaho College SUB**  
**Lake Coeur d'Alene Room**

**Pupil Transportation Negotiated Rulemaking and Proposed Rule Phase, Rod McKnight**

**Order to Transfer Property from Shoshone SD to Dietrich SD, Bob West**

**Requests for Trustee Rezones, Bob West**

**FY 2003 Public Schools Budget, Tim Hill**

**Achievement Standards Update, Lydia Guerra**

**Superintendent's Report, Marilyn Howard**

## **A. SUBJECT:**

### **Approval of a Proposed Rule**

## **BACKGROUND:**

Idaho Code § 33-1501 through § 33-1512 and § 33-1006 address the operations and reimbursement of costs for the transportation of public and non-public school pupils.

Administrative Rules of the State Board of Education (IDAPA 08.02.02.150 through IDAPA 08.02.02.210) further define Idaho's pupil transportation operations and support program.

The State Board of Education, under Idaho Code § 33-101, is charged with the general supervision, governance and control of the public school systems. The Board determines public school policy and promulgates rules to effectuate its policy. The State Department of Education, under Idaho Code § 33-125, is responsible for the enforcement of policies, procedures and duties authorized by law or established by the State Board of Education for all elementary and secondary school matters.

The State Board of Education approved a Notice of Negotiated Rulemaking at its regular board meeting on October 20, 2000.

## **DISCUSSION:**

Idaho Code § 33-1006 holds that the State Board of Education shall determine which expenses shall be allowable for purposes of reimbursement. Pursuant to the statute, and under its general rule-making authority, the State Board of Education promulgated administrative rules further defining reimbursable expenses. IDAPA 08.02.02.190 requires uniform record keeping by school districts, and further delineates which expenses will be allowed for reimbursement.

Where a statute or rule does not expressly cover a given circumstance, the State Department of Education must necessarily exercise a degree of administrative discretion, consistent with the intent of the governing rule or law, to carry out its duties. Neither Idaho Code § 33-1006 nor Administrative Rules of the State Board of Education directly addresses

specific reimbursable costs for which a district may be reimbursed. Clearly, it would be unreasonable to expect the State Board of Education to address every possible expense for which districts would be reimbursed. However, controversial pupil transportation operational issues continue to surface. These issues are generally related to reimbursement questions, but are also associated with National Minimum Standards for School Bus Construction, Maintenance Standards and Inspections, School Bus Driver Training and Vehicle Operations, Written District Policies Related to pupil transportation, Program Operations including field trips, safety busing, educational programs, and contracting for transportation services, Capital Investment, and Commercial Computerized Routing.

Following SBOE approval of the negotiated rulemaking process, SDE expended a significant amount of time visiting with superintendents, transportation supervisors, contractors and technicians throughout the state. Staff members from the pupil transportation section presented suggested language at nine regional superintendents' meetings, six post-legislative tour locations, the Idaho Pupil Transportation Summer Conference and a public hearing was held on March 12, 2001. Staff members also met with several individuals with a high level of interest on several occasions. Subsequent to significant input from various concerned stakeholders, the ***Standards for Idaho School Buses and Operations – April 1, 2001*** document has been drafted as part of the proposed rule process.

### **RECOMMENDATIONS:**

The State Department of Education seeks approval to proceed with a Notice of Intent to Promulgate Rules - Proposed Rulemaking for publication in the October Administrative Bulletin.

The goals of the State Department of Education will be to clarify board rule language, establish equitable reimbursement criteria (a matrix), develop minimum standards for school bus construction, develop a school bus out-of-service matrix, provide for increased local control in driver training curricula and methods, and establish a district accountability process.

### **BOARD ACTION:**

It was moved by \_\_\_\_\_,  
seconded by \_\_\_\_\_, and carried to

approve/disapprove/table the Notice of Intent to Promulgate Rules - Proposed Rulemaking for publication in the October 2001 Administrative Bulletin.

**ATTACHEMENTS:**

1. Initial draft of proposed IDAPA 08.02.02.150 through IDAPA 08.02.02.210 in legislative formatted text. The proposed rule change is subject to change secondary to the Proposed Rulemaking process.
2. Initial draft of proposed IDAPA 08.02.02.150 through IDAPA 08.02.02.210 in plain text. The proposed rule change is subject to change secondary to the Proposed Rulemaking process.
3. Notice of Intent to Promulgate Rules (Proposed Rulemaking)
4. Safety busing
5. Draft of *Standards for Idaho School Buses and Operations*

## **150. TRANSPORTATION.**

~~National Standards Adopted. Effective April 1, 1997, Minimum School Bus Construction Standards. a~~All new school bus chassis and bodies must meet or exceed the 1995 revised edition of the National Minimum Standards for Idaho School Buses and Operations, April 1, 2002, Construction, as developed by the Twelfth National Conference on School Transportation, May 21-26, 1995, which are hereby adopted by reference, ~~except for the following modifications: as authorized in Title 33, Chapter 15, Idaho Code, Section 33-1511.~~ (4-1-9702)

### **01. Vehicle Identification.** (4-1-97)

~~a. School district owned vehicles will be identified with black lettering (minimum four inches (4") high) on both sides of the school bus using the district name and number listed in the Idaho Educational Directory.~~ (4-1-97)

~~b. Each bus will be separately identified with its own number in four (4) places using six inch (6") high black numbers. Contractor owned buses registered under P.U.C.(Public Utilities Commission) regulations must meet P.U.C. identification standards. Contractor owned buses not registered under P.U.C. regulations must meet the same identification standards as district owned buses.~~(4-1-97)

## **151. -- 159. (RESERVED).**

## **160. MAINTENANCE STANDARDS AND INSPECTIONS.**

**01. Safety.** School buses will be maintained in a safe operating condition at all times. ~~The following is a list of a few unsafe conditions: cracked or broken cross members or frame rails; any brake lines that are kinked or cracked; and any damaged body panel or bumper that is protruding from the bus to the extent that it could injure someone walking into it.~~ Certain equipment or parts of a school bus which are critical to its safe operation must be maintained at prescribed standards. When routine maintenance checks reveal the any unsafe condition of any items listed identified in Subsections 160.01.a. through 160.01.d., Standards for Idaho School Buses and Operation, April 1, 2002, which are hereby adopted by reference, the school district will eliminate the deficiency before returning the vehicle to service. (4-1-9702)

~~a. Front tires less than four thirty seconds inch (4/32") tread.~~ (4-1-97)

~~b. Rear tires less than two thirty seconds inch (2/32") tread.~~ (4-1-97)

~~———— c. ——— Brake drums — no greater than the maximum stamped on the drum. (4-1-97)~~

~~———— d. ——— Brake linings — less than two thirty seconds inch (2/32"). ——— (4-1-97)~~

**02. Annual Inspection.** After completion of the annual school bus inspection, and if the school bus is approved for operation, an annual inspection sticker, indicating the year and month of inspection, will be ~~signed by the district superintendent and~~ placed in the lower, right-hand corner of the right side front windshield. The date indicated on the inspection sticker shall correlate to SDE's annual school bus inspection certification report signed by pupil transportation maintenance personnel and countersigned by the district superintendent. (Section 33-1506, Idaho Code) (4-1-9702)

**03. Documentation of Inspection.** All inspections will be documented in writing. Annual inspections must be documented in writing on the form provided by the State Department of Education. (4-1-97)

**04. Unsafe Vehicle.** When a bus has been removed from service during a State Department of Education inspection due to an unsafe condition, the district will notify the State Department of Education on the appropriate form before the bus can be returned to service. When a bus has been found to have deficiencies that are not life-threatening, it will be repaired within thirty (30) days and the State Department of Education notified on the appropriate form. If the deficiencies cannot be repaired within thirty (30) days, the bus must be removed from service until the deficiencies have been corrected or an extension granted. Removal from service criteria shall be delineated in Standards for Idaho School Buses and Operations, April 1, 2002, which are hereby adopted by reference. (4-1-9702)

**161. -- 169. (RESERVED).**

**170. SCHOOL BUS DRIVERS AND VEHICLE OPERATION.** All school districts and school bus drivers must meet or exceed the training, performance and operation requirements delineated in Standards for Idaho School Buses and Operations, April 1, 2002, which are hereby adopted by reference. (Section 33-1508; 33-1509; ~~33-1511~~, Idaho Code) (4-1-9702)

**01. Driver Training.**————— (4-1-97)

~~\_\_\_\_\_ a. All new drivers will complete the Idaho School Bus Driver Training Curriculum, dated October 17, 1996, or a comparable, prior-approved training program, have ten (10) hours observation and behind-the-wheel training, and pass all knowledge and skill tests contained in the Idaho School Bus Driver Training Curriculum with a minimum score of eighty percent (80%) before being allowed to drive a school bus loaded with students. (4-1-97)~~

~~\_\_\_\_\_ b. All experienced drivers will complete at least six (6) hours refresher driver training each year before school begins in the fall. In addition, four (4) hours will be held at intervals during the school year. (4-1-97)~~

~~\_\_\_\_\_ **02. Vehicle Operation.** All school districts and school bus drivers must meet the operations and performance requirements as contained in the Idaho School Bus Driver Training Curriculum. (4-1-97)~~

**171. -- 179. (RESERVED).**

**180. WRITTEN POLICY.**

The board of trustees will establish and adopt a set of written policies governing the pupil transportation system. Each school system that provides activity bus transportation for pupils shall have comprehensive policies and guidelines regarding activity transportation. (4-1-9702)

**181. -- 189. (RESERVED).**

**190. PROGRAM OPERATIONS.** ~~The State Board of Education has adopted rules that set forth the fiscal reporting requirements and define allowable transportation costs for all school districts that operate a school transportation system.~~ School district fiscal reporting requirements as well as reimbursable and non-reimbursable costs within the Pupil Transportation Support Program, including but not limited to administration, field and activity trips, safety busing, contracting for transportation services, leasing of district-owned buses, insurance, ineligible and non-public school students, ineligible vehicles, capital investments including the purchasing of school buses and equipment, and commercial computerized routing and scheduling software shall be delineated in Standards for School Buses and Operations, April 1, 2002, which is hereby adopted by reference. (Section 33-1006, Idaho Code) (4-1-9702)

~~\_\_\_\_\_ **01. Program Operation Costs.** Each school district that operates a school transportation system will maintain accurate records of operations and costs~~

~~on uniform record keeping forms provided by the Department of Education. Information will be made available to the Department of Education for audit purposes upon request. Information will be compiled and retained for a minimum of four (4) years, including the current fiscal year, in the following areas: (4-1-97)~~

~~**02. Administrative Costs.** (4-1-97)~~

~~a. The school district administrative reimbursement will be seven and one half percent (7.5%) of all reimbursable costs for transporting pupils except administration costs, depreciation, and contracted services, as reported to the State Department of Education on the Annual Pupil Transportation Claim for Reimbursement (Schedule B); or (4-1-97)~~

~~b. Actual administrative costs, operation of plant, maintenance of plant, and fixed costs which are directly related, charged and reported as transportation costs to the State Department of Education on the Annual Pupil Transportation Claim for Reimbursement (Schedule A). (4-1-97)~~

~~**03. Field Trips and Activity Busing.** If the local board of trustees authorizes the use of school buses to transport students to and from school-sponsored activities, the local board will use school buses that are in safe mechanical condition. (4-1-97)~~

~~a. Field trips will be reimbursable when they are approved school activities that are an integral part of the total education program, occur during the regular school year and extend not more than one hundred (100) miles beyond the boundaries of the state. The district will maintain accurate records of all field trips including the purpose of the trip and mileage. (4-1-97)~~

~~b. The following activities which are under the jurisdiction and sponsorship of the Idaho High School Activities Association will not be reimbursable: baseball, basketball, cross country, debate, drama, drill team, football, golf, instrumental music, speech, tennis, track, vocal music, volleyball, and wrestling. In addition to these, any other school activity that is scheduled and held for competition purposes is not reimbursable. (4-1-97)~~

~~c. The costs of transporting athletes or students to and from extracurricular activities are not reimbursable. (4-1-97)~~



~~—— d. — Districts will be permitted flexibility in scheduling bus routes; however, activity busing that results in duplicating service to an area is not reimbursable. (4-1-97)~~

~~—— e. — The district will maintain accurate records of all trips, including the purposes of the trip and mileage. (4-1-97)~~

~~—— **04. Safety Busing.** State Department of Education transportation personnel will conduct an on-site review of each school district's initial application. Each applying district will be required to reapply annually and confirm that conditions are unchanged. In order to qualify for reimbursement the local school board will, by official action, approve a safety busing request and cause the students in question to be transported before either the initial or the reapplication request is sent to the state. Consideration for reimbursement will also be contingent on the application being received by the State Department of Education Transportation Section on or before October 31. If unusual circumstances occur after the due date, new applications or amendments to previously submitted applications may be filed. (4-1-97)~~

~~—— **05. Contract For Transportation Services.** Any district that contracts for pupil transportation services will have a copy of its current contract on file with the Supervisor of Pupil Transportation in the Department of Education. (Section 33-1510, Idaho Code) (4-1-97)~~

~~—— **06. Leasing District-Owned Buses.** School districts will develop and use a policy approved by the local board of trustees delineating responsibility and use of rental or leased buses. Any costs to the district will not be reimbursable under the transportation formula. Districts will maintain liability insurance coverage on rented or leased buses. (Section 33-1512, Idaho Code) (4-1-97)~~

~~—— **07. Ineligible Vehicles.** Costs incurred when transporting pupils in any vehicle that does not meet all state and national standards for a school bus will not be reimbursable within the Foundation Transportation Program. (4-1-97)~~

~~—— **08. Liability Insurance.** Every policy, contract of insurance, or comprehensive liability plan for each local school district-owned or each contract-owned school bus will provide that the insurance carrier pay on behalf of the insured local school district or contractor to a limit of no less than five hundred thousand dollars (\$500,000) per person limited to three million dollars (\$3,000,000) for bodily injury, death, or property damage or loss as the result of~~

~~any one (1) occurrence or accident, regardless of the number of persons injured or the number of claimants. (Section 33-1507, Idaho Code) (4-1-97)~~

~~**09. Non-Public School Students.** The cost of transporting non-public school students must be deducted when submitting the transportation reimbursement claim. Each school district must recover the additional cost of transporting non-public school students, and in no event may that cost be determined to be zero (0). (Section 33-1501, Idaho Code) (4-1-97)~~

**191. -- 199. (RESERVED).**

**Repealed**

**200. CAPITAL INVESTMENT.**

**Repealed**

**201. -- 209. (RESERVED).**

**Repealed**

**210. COMMERCIAL COMPUTERIZED ROUTING AND SCHEDULING.**

**Repealed**

## **150. TRANSPORTATION.**

Minimum School Bus Construction Standards. All new school bus chassis and bodies must meet or exceed Standards for Idaho School Buses and Operations, April 1, 2002, which are hereby adopted by reference, as authorized in Title 33, Chapter 15, Idaho Code, Section 33-1511. (4-1-9702)

## **151. -- 159. (RESERVED).**

## **160. MAINTENANCE STANDARDS AND INSPECTIONS.**

**01. Safety.** School buses will be maintained in a safe operating condition at all times. Certain equipment or parts of a school bus which are critical to its safe operation must be maintained at prescribed standards. When routine maintenance checks reveal any unsafe condition identified in Standards for Idaho School Buses and Operation, April 1, 2002, which are hereby adopted by reference, the school district will eliminate the deficiency before returning the vehicle to service.(4-1-9702)

**02. Annual Inspection.** After completion of the annual school bus inspection, and if the school bus is approved for operation, an annual inspection sticker, indicating the year and month of inspection, will be placed in the lower, right-hand corner of the right side front windshield. The date indicated on the inspection sticker shall correlate to SDE's annual school bus inspection certification report signed by pupil transportation maintenance personnel and countersigned by the district superintendent. (Section 33-1506, Idaho Code)(4-1-9702)

**03. Documentation of Inspection.** All inspections will be documented in writing. Annual inspections must be documented in writing on the form provided by the State Department of Education. (4-1-97)

**04. Unsafe Vehicle.** When a bus has been removed from service during a State Department of Education inspection due to an unsafe condition, the district will notify the State Department of Education on the appropriate form before the bus can be returned to service. When a bus has been found to have deficiencies that are not life-threatening, it will be repaired within thirty (30) days and the State Department of Education notified on the appropriate form. If the deficiencies cannot be repaired within thirty (30) days, the bus must be removed from service until the deficiencies have been corrected or an extension granted. Removal from service criteria shall be delineated in Standards for Idaho School Buses and Operations, April 1, 2002, which are hereby adopted by reference. (4-1-9702)

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**190. PROGRAM OPERATIONS.** School district fiscal reporting requirements as well as reimbursable and non-reimbursable costs within the Pupil Transportation Support Program, including but not limited to administration, field and activity trips, safety busing, contracting for transportation services, leasing of district-owned buses, insurance, ineligible and non-public school students, ineligible vehicles, capital investments including the purchasing of school buses and equipment, and commercial computerized routing and scheduling software shall be delineated in Standards for School Buses and Operations, April 1, 2002, which is hereby adopted by reference. (Section 33-1006, Idaho Code) (4-1-9702)

**IDAPA 08-IDAHO STATE BOARD OF EDUCATION**

**08.02.02 - RULES GOVERNING UNIFORMITY**

**DOCKET NO. 08-0202-003**

**NOTICE OF INTENT TO PROMULGATE RULES - (NEGOTIATED RULEMAKING)**

**AUTHORITY:** In compliance with Section 67-5220(1), Idaho Code, notice is hereby given that this agency has proposed rulemaking. The action is authorized pursuant to Sections 33-1501 through 33-1512 and 33-1006, Idaho Code.

**PUBLIC HEARING SCHEDULE:** A public hearing on this rulemaking will be held as follows:

October 17, 2001, 9:00-11:00 a.m. - Idaho State Department of Education, LBJ Building - 2<sup>nd</sup> floor Conference Room - 650 State St., Boise, ID 83720-0027. The meeting site will be accessible to persons with disabilities. Requests for accommodation must be made not later than five (5) days prior to the meeting. For arrangements, contact the undersigned at (208) 332-6811.

**DESCRIPTIVE SUMMARY:** The following is a statement in nontechnical language of the substance and purpose of the intended rulemaking and the principle issues involved:

The goal of the State Department of Education is to clarify board rule language, establish equitable reimbursement criteria (a matrix), develop minimum standards for school bus construction, develop a school bus out-of-service matrix, provide for increased local control in driver training methods, and generate increased district accountability.

**NEGOTIATED RULEMAKING:** Pursuant to IDAPA 04.11.01.811, negotiated rulemaking was conducted. The Notice of Negotiated Rulemaking was published in the December 2000 Idaho Administrative Bulletin, Volume 00-12, Page 17. Following SBE approval of the negotiated rulemaking process, SDE expended a significant amount of time visiting with superintendents, transportation supervisors, contractors and technicians throughout the state. Staff members from the pupil transportation section presented suggested language at nine regional superintendents' meetings, six post-legislative tour locations, the Idaho Pupil Transportation Summer Conference and a public hearing was held on March 12, 2001. Staff members also met with several individuals with a high level of interest on several occasions. Subsequent to significant input from various concerned stakeholders, the *Standards for Idaho School Buses and Operations – April 1, 2001* document has been drafted as part of the proposed rule process.

**ASSISTANCE ON TECHNICAL QUESTIONS, SUBMISSION OF WRITTEN COMMENTS, OBTAINING COPIES:** For assistance on technical questions concerning this rulemaking or to obtain a copy of the draft of the text of the proposed rule, contact Rodney D. McKnight, State Department of Education, Finance and Transportation, P.O. Box 83720, Boise, Idaho, (208) 332-6851 or fax to (208) 334-3484.

Anyone may submit written comments regarding this proposed rulemaking. All written comments must be directed to the undersigned and must be delivered on or before October 24, 2001.

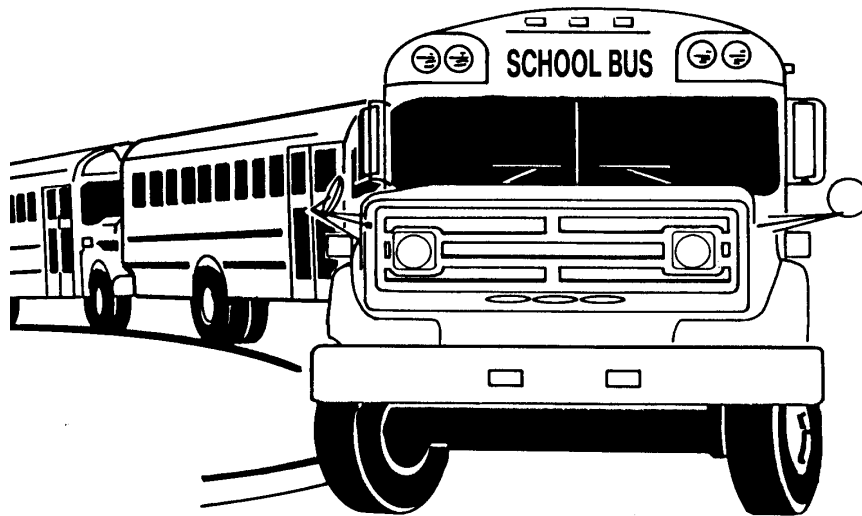
**DATED** this 3<sup>rd</sup> day of August, 2001

Dr. Marilyn Howard, Superintendent of Public Instruction  
State Department of Education  
650 West State Street - P.O. Box 83720  
Boise, Idaho 83720-0027  
(208) 332-6811 - (208) 332-6836 fax

# STANDARDS FOR IDAHO SCHOOL BUSES AND OPERATIONS

April 1, 2002

## A D R A F T OF A PROPOSED RULE



Marilyn Howard Ed.D, State Superintendent of Public Instruction  
State of Idaho, Department of Education, Pupil Transportation  
650 W. State St., P.O. Box 83720, Boise, ID 83720-0027, 208-332-6851



# **STANDARDS FOR IDAHO SCHOOL BUSES AND OPERATIONS**

**APRIL 1, 2002**

## **IDAHO STATE DEPARTMENT OF EDUCATION**

State Superintendent of Public Instruction  
Dr. Marilyn Howard

Chief Deputy Superintendent of Public Instruction  
Dr. Robert West

Management Assistant  
Lindy High

Deputy Attorney General  
Don Robertson

Public Information Officer  
Allison Westfall

Bureau Chief of Finance and Transportation Services  
Tim Hill

Supervisor of Transportation Services  
Rodney D. McKnight

Pupil Transportation Section  
Ray F. Merial, Specialist  
Lanette Daw, Specialist  
Michelle Ross, Office Clerk

# **STANDARDS FOR IDAHO SCHOOL BUSES AND OPERATIONS**

**APRIL 1, 2002**

## **IDAHO STATE BOARD OF EDUCATION**

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Boise

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Boise

Kevin Satterlee, Chief Legal Officer  
Boise



## STANDARDS FOR IDAHO SCHOOL BUSES AND OPERATIONS

*APRIL 1, 2002*

### PUPIL TRANSPORTATION STEERING COMMITTEE MEMBERS

Rodney D. McKnight, Chair  
Supervisor, Transportation Services  
Boise

Ray Merial, Co-Chair  
Specialist, Transportation Services  
Boise

Lanette Daw, Member  
Specialist, Transportation Services  
Boise

Leon Hall, Member  
Lewiston S. D. No. 340  
Lewiston

Kevin Seamons, Member  
Preston S.D. No. 201  
Preston

Paul Hawkins, Member  
Teton S. D. No. 401  
Driggs

Dale Maslonka, Member  
Horseshoe Bend S.D. No. 073  
Horseshoe Bend

Sue Johnston, Member  
Meridian S.D. No. 002  
Meridian

Alicia Bywater, Member  
Minidoka S.D. No. 331  
Rupert

Virginia Overland, Member  
Lake Pend Oreille S.D. No. 084  
Sandpoint

Carol Brown, Member  
IAPT President  
Coeur d' Alene S.D. No. 271  
Coeur d' Alene

Dick Krasselt, Member  
IAPT Secretary/Treasurer  
Moscow S.D. No. 281  
Moscow

Vern Carpenter, Member  
Brown Bus Company  
Boise

## STANDARDS FOR IDAHO SCHOOL BUSES AND OPERATIONS

*APRIL 1, 2002*

### *FORWARD*

This edition of *Standards for Idaho School Buses and Operations, April 1, 2002*, is based on the recommendations of the Thirteenth National Conference on School Transportation, Warrensburg, Missouri, May 2000. (33-1506, Idaho Code)

The *Standards for Idaho School Buses and Operations, April 1, 2002* serves two important purposes. First, it assists pupil transportation personnel in their effort to provide Idaho's school children with maximum safety consistent with economic use of pupil transportation funds and available school bus technology. Second, it provides bus manufacturers, equipment suppliers, government agencies, and technicians/mechanics with an outline of minimum specifications for school buses owned and operated in Idaho. This standard fulfills part of the state's responsibility as outlined in *Highway Safety Program Guideline No. 17, Pupil Transportation Safety*, U.S. Secretary of Transportation, in accordance with provisions of the Highway Safety Act of 1966.

This document is prepared in accordance with sections 33-1006 and 33-1501 through 33-1512 of the *Idaho Code* and Part 49 of the *Code of Federal Regulations*. It is based primarily on the *2000 National Minimum Specifications for School Buses and Operations*, and includes supplementary provisions adopted by the Idaho Pupil Transportation Steering Committee. This committee meets biannually to discuss pupil transportation issues and assists in establishing minimum standards for school buses and school bus operations. The committee is also asked to periodically assist in modifying the *Standards* to ensure that they conform to national minimum specifications and that they reflect state of the art in equipment technology.

*Standards for Idaho School Buses and Operations* is composed of two major divisions: bus standards and operations standards. The first division is divided into five sections and sets forth minimum state standards for school buses such as body strength, color, seat design, and electrical systems. The second major division provides state rules for the operation of school buses. These include such guidelines as employee qualifications, maintenance standards, bus routing, and finance. Each of the two major divisions is followed by a set of appendices that provide school districts with practical guidance for equipment care and day-to-day operations.

This edition of the *Standards* includes numerous minor changes in national minimum specifications, all of which follow changes resulting from the 13th National Conference on School Transportation in Warrensburg, Missouri, in May 2000.

## *ACKNOWLEDGMENTS*

The Idaho Pupil Transportation Steering Committee acknowledges the assistance of its many colleagues, both within and outside the State of Idaho, and to the numerous individuals in the school bus industry who have contributed significant technical advice. Contractors, school district superintendents, business managers and pupil transportation supervisors from across the state provided invaluable assistance throughout the project.

*STANDARDS FOR IDAHO SCHOOL BUSES AND OPERATIONS*

*APRIL 1, 2002*

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**PROPOSED ADMINISTRATIVE RULE OF THE STATE BOARD of EDUCATION**  
**08.02.02**

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**150. TRANSPORTATION.**

Minimum School Bus Construction Standards. All new school bus chassis and bodies must meet or exceed Standards for Idaho School Buses and Operations, April 1, 2002, which are hereby adopted by reference, as authorized in Title 33, Chapter 15, Idaho Code, Section 33-1511.(4-1-9702)

**151. -- 159. (RESERVED).**

**160. MAINTENANCE STANDARDS AND INSPECTIONS.**

**01. Safety.** School buses will be maintained in a safe operating condition at all times. Certain equipment or parts of a school bus, which are critical to its safe operation, must be maintained at prescribed standards. When routine maintenance checks reveal any unsafe condition identified in Standards for Idaho School Buses and Operation, April 1, 2002, which are hereby adopted by reference, the school district will eliminate the deficiency before returning the vehicle to service. (4-1-9702)

**02. Annual Inspection.** After completion of the annual school bus inspection, and if the school bus is approved for operation, an annual inspection sticker, indicating the year and month of inspection, will be placed in the lower, right-hand corner of the right side front windshield. The date indicated on the inspection sticker shall correlate to SDE's annual school bus inspection certification report signed by pupil transportation maintenance personnel and countersigned by the district superintendent. (Section 33-1506, Idaho Code) (4-1-9702)

**03. Documentation of Inspection.** All inspections will be documented in writing. Annual inspections must be documented in writing on the form provided by the State Department of Education. (4-1-97)

**04. Unsafe Vehicle.** When a bus has been removed from service during a State Department of Education inspection due to an unsafe condition, the district will notify the State Department of Education on the appropriate form before the bus can be returned to service. When a bus has been found to have deficiencies that are not life threatening, it will be repaired within thirty (30) days and the State Department of Education notified on the appropriate form. If the deficiencies cannot be repaired within thirty (30) days, the bus must be removed from service until the deficiencies have been corrected or an extension granted. Removal from service criteria shall be delineated in Standards for Idaho School Buses and Operations, April 1, 2002, which are hereby adopted by reference. (4-1-9702)

**161. -- 169. (RESERVED).**

**170. SCHOOL BUS DRIVERS AND VEHICLE OPERATION.** All school districts and school bus drivers must meet or exceed the training, performance and operation requirements delineated in Standards for Idaho School Buses and Operations, April 1, 2002, which are hereby adopted by reference. (Section 33-1508; 33-1509, Idaho Code) (4-1-9702)

**171. -- 179. (RESERVED).**

**180. WRITTEN POLICY.**

The board of trustees will establish and adopt a set of written policies governing the pupil transportation system. Each school system that provides activity bus transportation for pupils shall have comprehensive policies and guidelines regarding activity transportation. (4-1-9702)

**181. -- 189. (RESERVED).**

**190. PROGRAM OPERATIONS.** School district fiscal reporting requirements as well as reimbursable and non-reimbursable costs within the Pupil Transportation Support Program, including but not limited to administration, field and activity trips, safety busing, contracting for transportation services, leasing of district-owned buses, insurance, ineligible and non-public school students, ineligible vehicles, capital investments including the purchasing of school buses and equipment, and commercial computerized routing and scheduling software shall be delineated in Standards for School Buses and Operations, April 1, 2002, which is hereby adopted by reference. (Section 33-1006, Idaho Code) (4-1-9702)

## **INTRODUCTION TO SCHOOL BUS CONSTRUCTION AND MAINTENANCE STANDARDS**

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This portion of *Standards for Idaho School Buses and Operations* is divided into five sections: Chassis Standards, Body Standards, Standards for Specially Equipped School Buses, Standards for Alternative Fuel for School Buses and Removal from Service Criteria. There are two basic reasons for this format: (1) to define minimum chassis and body standards, and (2) to assign responsibility for providing specific equipment. Items delineated in the chassis standards are to be provided by the chassis manufacturer. Items delineated in the body standards are to be provided by the body manufacturer. Most of the items delineated in the Specially Equipped School Bus Section are to be provided by the body manufacturer and most of the requirements for Standards for Alternative Fuel for School Buses are the responsibility of the chassis manufacturer. Therefore, whenever a school district purchases these types of vehicles, special attention must be given to both the chassis specifications and the body specification as they relate to the specific manufacturers.

For new vehicles, it is the responsibility of the vehicle manufacturers to certify compliance with applicable federal standards by installing a certification plate in the driver's area on each vehicle. However, as the vehicle is maintained over its useful life, it is the responsibility of those who supervise and perform work on the vehicle to assure on-going compliance with all applicable standards. When routine maintenance checks reveal any unsafe condition as defined in these standards, the school district will remove the vehicle from service and will eliminate the deficiency before returning the vehicle to service. For this reason, maintenance personnel training, quality components, quality workmanship and thorough maintenance records are essential.

### **STATUTORY AUTHORITY**

The State Board of Education shall adopt, publish and distribute and from time to time as need therefor arises amend, minimum standards for the construction of school buses, the basis of which standards shall be those incorporated in the latest report of the National Conference on School Transportation, which report shall be filed with the Department of Law Enforcement. (33-1511, Idaho Code)

All school buses shall at all times conform to the standards of construction prescribed therefor by the state board of education. Before any newly acquired school bus is used for transporting pupils it shall be inspected by a duly authorized representative of the state department of education, and if, upon inspection, it conforms to prescribed standards of construction, or such other standards prescribed by law or regulation, it may be used for transporting pupils; otherwise, no such school bus shall be used for that purpose. The board of trustees of each school district shall provide for an annual inspection of all school buses by district personnel or upon contract at intervals of not more than twelve (12) months. The district, over the signature of the superintendent, shall file with the state department of education its report of inspection of the school buses operated by the authority of the school district. At intervals of not more than sixty (60) days during each school year the board of trustees shall cause inspection to be made of all school buses operating under the authority of the board. In addition, the state department of

education shall conduct random, spot inspections of school buses throughout the school year. Whenever any school bus is found, upon inspection, to be deficient in any of the prescribed standards, or is found in any way to be unsafe or unfit for the transportation of pupils, such vehicle shall be withdrawn from service and shall not be returned to service until the district certifies the necessary repairs have been made. (33-1506, Idaho Code)

The State Department of Education shall develop and maintain out-of-service criteria, the basis of which shall be the latest published document from the most recent National Conference on School Transportation. All State Department of Education published out-of-service criteria shall be subsequent to input from the Pupil Transportation Steering Committee and new school bus state inspectors.

Administrative Rules of the State Board of Education: 08.02.02.150 and 08.02.02.160.

## **RESPONSIBILITIES OF SUPPLIERS**

Delivery Requirements: The school bus manufacturer shall provide the following materials to the purchaser of a new school bus at the time the unit is delivered to the purchasing school district or contractor. The new school bus dealer, school district or contractor shall provide the following materials to the state school bus inspector at the time the unit undergoes its new school bus state inspection.

Line set tickets for each bus built as a complete unit, and a separate set of tickets for buses manufactured in two pieces.

A copy of the pre-delivery **inspection (PDI)** performed and verified by a checklist form for each individual unit.

**Heater shut-off valve and bleeder locations shall be listed on the PDI form.**

Warranty book and statement of warranty for each individual unit. All warranties shall commence on the day that the purchaser takes possession of the completed bus.

Service manual for each individual unit or group of identical units.

Parts manual for each individual unit or group of identical units.

## **DEFINITIONS, SCHOOL BUS**

### **Type A**

A Type "A" school bus is a van conversion or bus constructed utilizing a cutaway front-section vehicle with a left side driver's door. The entrance door is behind the front wheels. This definition includes two classifications: Type A1, with a Gross Vehicle Weight Rating (GVWR) less than or equal to 10,000 pounds; and Type A2, with a GVWR greater than 10,000 pounds.

## **Type B**

A Type "B" school bus is constructed utilizing a stripped chassis. The entrance door is behind the front wheels. This definition includes two classifications; Type B1, with a GVWR less than or equal to 10,000 pounds; and Type B2, with a GVWR greater than 10,000 pounds.

## **Type C**

A Type "C" school bus is constructed utilizing a chassis with a hood and front fender assembly. The entrance door is behind the front wheels.

## **Type D**

A Type "D" school bus is constructed utilizing a stripped chassis. The entrance door is ahead of the front wheels.

## **Code of Federal Regulations 49CFR390.5 - Definitions**

**Bus** means any motor vehicle designed, constructed, and or used for the transportation of passengers, including taxicabs.

**School bus** means a passenger motor vehicle, which is designed or used to carry more than 10 passengers in addition to the driver, and which the Secretary determines is likely to be significantly used for the purpose of transporting preprimary, primary, or secondary school students to such schools from home or from such schools to home.

**School bus operation** means the use of a school bus to transport only school children and/or personnel from home to school and from school to home.

## **Idaho Code 33-1504. School Buses**

A motor vehicle shall be deemed a "school bus" when it has a seating capacity of more than ten (10) persons and meets the current national and state minimum standards for school bus construction, and is owned and operated by a school district or a common carrier and is used exclusively for transporting pupils, or is owned by a transportation contractor and is used regularly for transporting pupils.

## **TECHNOLOGY AND EQUIPMENT, NEW**

It is the intent of these standards to accommodate new technologies and equipment that will better facilitate the transportation of all students. When a new technology, piece of equipment or component is desired to be applied to the school bus and it meets the following criteria, it may be acceptable.

The technology, equipment or component shall not compromise the effectiveness or integrity of any major safety system, unless it completely replaces the system. (Examples of safety systems



include, but are not limited to, compartmentalization, the eight-light warning system, emergency exits, and the yellow color scheme.)

The technology, equipment or component shall not diminish the safe environment of the interior of the bus.

The technology, equipment or component shall not create additional risk to students who are boarding or exiting the bus or are in or near the school bus loading zone.

The technology, equipment or component shall not create undue additional activity and/or responsibility for the driver.

The technology, equipment or component shall generally increase efficiency and/or safety of the bus, or generally provide for a safer or more pleasant experience for the occupants and pedestrians in the vicinity of the bus or generally assist the driver or make his/her many tasks easier to perform.

## BUS CHASSIS STANDARDS

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### **AIR CLEANER**

A dry element type air cleaner shall be provided.

All diesel engine air filters shall include a restriction indicator of the latching type that retains the maximum restriction developed during operation of the engine. The indicator should include a reset control so the indicator can be returned to zero when desired. **Type A buses are not exempt from this requirement.**

### **AIR CONDITIONING (NON-REIMBURSABLE OPTION – see exception)**

Chassis installed air conditioning must meet the same requirements as those cited in the bus body standards under “Heating and Air Conditioning.”

Reimbursement Exception: Air conditioning shall be reimbursable under the pupil transportation support program when the school district can demonstrate a need subsequent to an IDEA mandated related service.

### **AXLES**

~~The front and rear axle and suspension systems shall have gross axle weight rating (GVWR) at ground commensurate with the respective front and rear weight loads that will be imposed by the bus.~~

### **BRAKES (GENERAL)**

The chassis brake system shall conform to the provisions of FMVSS No. 105, No. 106 and No. 121 as applicable.

The anti-lock brake system (ABS), provided in accordance with FMVSS No. 105 or No. 121, shall provide wheel speed sensors for each front wheel and for each wheel on at least one rear axle. The system shall provide anti-lock braking performance for each wheel equipped with sensors. (Four Channel System).

All brake systems shall be designed to permit visual inspection of brake lining wear without removal of any chassis component(s).

The brake lines, booster-assist lines, and control cables shall be protected from excessive heat, vibration and corrosion and installed in a manner which prevents chafing.

The parking brake system for either air or hydraulic service brake systems may be of a power assisted design. The power parking brake actuator should be a push-pull device located on the instrument panel within seated reach of a 5<sup>th</sup> percentile female driver. As an option, the parking

brake may be set by placing the automatic transmission shift control mechanism in the “park” position.

The power-operated parking brake system may be interlocked to the engine key switch. Once the parking brake has been set and the ignition switch turned to the “off” position, the parking brake cannot be released until the key switch is turned back to the “on” position.

## **BRAKES (HYDRAULIC)**

Buses using a hydraulic **or vacuum**-assist brake shall be equipped with audible and visible warning signals that provide a continuous warning to the driver of loss of fluid flow from the primary source and of a failure of the back-up pump system. **Type A buses are not exempt from this requirement.**

For hydraulic brake systems, a service brake pressure application gauge, if available, shall be provided in the instrument panel.

## **BRAKES (AIR)**

The air pressure supply system shall include a desiccant-type air dryer installed according to the manufacturers’ recommendations. The air pressure storage tank system may incorporate an automatic drain valve.

The Chassis manufacturer should provide an accessory outlet for air operated systems installed by the body manufacturer. This outlet shall include a pressure protection valve.

For air brake systems, an air pressure gauge shall be provided in the instrument panel capable of complying with CDL pre-trip inspection requirements.

For air brake systems, a service brake pressure application gauge shall be provided in the instrument panel.

All air brake-equipped buses may be equipped with a service brake interlock. The parking brake cannot be released until the brake pedal is depressed.

Air brake systems may include a system for anti-compounding of the service brakes and parking brakes.

Air brakes shall have both a visible and audible warning device whenever the air pressure falls below the level where warnings are required under FMVSS No. 121.

## **BUMPER (FRONT)**

All school buses shall be equipped with a front bumper. The front bumper shall be furnished by the chassis manufacturer as part of the chassis on all types of chassis unless there is a specific arrangement between the chassis manufacturer and body manufacturer.

The front bumper shall be of pressed steel channel or equivalent material (except Type A buses having a GVWR of 14,500 pounds or less which may be OEM supplied) at least 3/16" thick and not less than 8" wide (high). It shall extend beyond forward-most part of the body, grille, hood, and fenders and shall extend to outer edges of the fenders at the bumper's top line.

Front bumper, except breakaway bumper ends, shall be of sufficient strength to permit pushing a vehicle of equal gross vehicle weight without permanent distortion to the bumper, chassis, or body.

A towing device (hooks, eyes, bar) shall be furnished **on all types of buses** and attached so as not to project beyond the front bumper. Towing devices attached to the frame chassis shall be furnished by the chassis manufacturer. This installation shall be in accordance with the chassis manufacturer's standards. **NOTE:** Rear tow devices are addressed in the Bus Body Specifications under Towing Attachments Points.

The bumper shall be designed or reinforced so that it will not deform when the bus is lifted by a chain that is passed under the bumper (or through the bumper if holes are provided for this purpose) and attached to the towing device(s). For the purpose of meeting this specification, the bus shall be empty and positioned on a level, hard surface and the towing device(s) shall share the load equally.

## **CERTIFICATION**

The chassis manufacturer, upon request of the State Department of Education Pupil Transportation Section, shall certify that its product meets minimum standards on items not covered by the FMVSS certification requirements of 49 CFR, Part 567.

## **CLUTCH**

Clutch torque capacity shall be equal to or greater than the engine torque output.

A starter interlock shall be installed to prevent actuation of the starter if the clutch is not depressed.

## **COLOR**

The chassis, including **axle hubs** and front bumper, shall be black. Body cowl, hood, and fenders shall be in national school bus yellow (NSBY). The flat top surface of the hood may be non-reflective black or NSBY. (See Appendix B).

Rims may be gray or black as received from the wheel manufacturer.

## **DRIVE SHAFT**

Drive shaft shall be protected by a metal guard or guards around the circumference of the drive shaft to reduce the possibility of its whipping through the floor or dropping to the ground, if broken.

## **ELECTRICAL SYSTEM**

### **Battery:**

The storage battery shall have minimum cold cranking capacity rating (cold cranking amps) equal to the cranking current required for 30 seconds at 0 degrees Fahrenheit and a minimum reserve capacity rating of 120 minutes at 25 amps. Higher capacities may be required, depending upon optional equipment and local environmental conditions.

Since all batteries are to be secured in a sliding tray in the body, chassis manufacturers shall temporarily mount the battery on the chassis frame, except that van conversion or cutaway front-section chassis may be secured in accordance with the manufacturer's standard configuration. In these cases, the final location of the battery and the appropriate cable lengths shall be agreed upon mutually by the chassis and body manufacturer. However, in all cases the battery cable provided with the chassis shall have sufficient length to allow some slack.

### **Alternator:**

All Type A-2 buses and Type B buses with a GVWR of 15,000 lbs or less shall have a minimum 60 ampere alternator.

Types A-2 and Type B buses over 15,000 lbs. GVWR and all types C and D buses shall be equipped with a heavy-duty truck or bus-type alternator meeting SAE J 180, having a minimum output rating of 100 amperes or higher, and should produce a minimum current output of 50 percent of the rating at engine idle speed.

Buses equipped with an electrically powered wheelchair lift, air conditioning or other accessories may be equipped with a device that monitors the electrical system voltage and advances the engine idle speed when the voltage drops to, or below, a pre-set level.

A belt alternator drive shall be capable of handling the rated capacity of the alternator with no detrimental effect on any other driven components. (See SBMTC; "School Bus Technical Reference." For estimating required alternator capacity.

A direct drive alternator is permissible in lieu of a belt driven alternator.

**Wiring:**

All wiring shall conform to current applicable recommended practices of the Society of Automotive Engineers (SAE).

All wiring shall use color and at least one other method of identification. The other method shall be either a number code or name code, and each chassis shall be delivered with a wiring diagram that illustrates the wiring of the chassis.

The chassis manufacturer shall install a readily accessible terminal strip or plug on the body side of the cowl or in an accessible location in the engine compartment of vehicles designed without a cowl. The strip or plug shall contain the following terminals for the body connections:

Main 100 amp body circuit

Tail lamps

Right turn signal

Left turn signal

Stop lamps

Back up lamps

Instrument panel lights (rheostat controlled by head lamp switch)

**Circuits:**

An appropriate identifying diagram (color plus a name or number code) for all chassis electrical circuits shall be provided to the body manufacturer for distribution to the end user.

The headlight system must be wired separately from the body-controlled solenoid.

**Daytime Running Lamps (DRL):**

A daytime running lamps system meeting chassis manufacturer's specifications may be provided.

**ENGINE FIRE EXTINGUISHER (OPTIONAL)**

Manufacturer may provide an automatic fire extinguisher system in the engine compartment, which may be reimbursable with prior approval.

## **EXHAUST SYSTEM**

The exhaust pipe, muffler and tailpipe shall be outside the bus body compartment and attached to the chassis so as not to damage any other chassis component.

The tailpipe shall be constructed of a corrosion-resistant tubing material at least equal in strength and durability to 16-gauge steel tubing of equal diameter.

Chassis manufacturers shall furnish an exhaust system with tailpipe of sufficient length to exit the rear of the bus or at the left side of the bus body no more than 18" forward of the front edge of the rear wheel house opening. If designed to exit at the rear of the bus, the tailpipe shall extend at least five inches beyond the end of the chassis frame. If designed to exit to the side of the bus, the tailpipe shall extend at least 48.5 inches (51.5 inches if the body is to be 102 inches wide) outboard from the chassis centerline.

On Types C and D vehicles, the tailpipe shall not exit beneath a fuel fill or emergency door exit.

Type A and B chassis may be furnished with the manufacturer's standard tailpipe configuration.

**NOTE:** See Bus Body Standards under Tailpipe.

The exhaust system on a chassis shall be adequately insulated from the fuel system.

The muffler shall be constructed of corrosion-resistant material.

The exhaust system on the chassis may be routed to the left of the right frame rail to allow for the installation of a power lift unit on the right side of the vehicle.

## **FENDERS: FRONT-TYPE C VEHICLES**

Total spread of outer edges of front fenders, measured at fender line, shall exceed total spread of front tires when front wheels are in straight-ahead position.

Front fenders shall be properly braced and shall not require attachment to any part of the body.

## **FRAME**

Frame (or equivalent) shall be of such design and strength characteristics as to correspond at least to standard practices for trucks of the same general load characteristics which are used for highway service.

Any secondary manufacturer that modifies the original chassis frame shall guarantee the performance of workmanship and materials resulting from such modification.

Frames shall not be modified for the purpose of extending the wheelbase.

Holes in top or bottom flanges or side units of the frame, and welding to the frame, shall not be permitted except as provided or accepted by chassis manufacturer.

Frame lengths shall be established in accordance with the design criteria for the complete vehicle.

## **FUEL TANK**

Fuel tank (or tanks) having a minimum 30-gallon capacity shall be provided by the chassis manufacturer. The tank shall be filled and vented to the outside of the body and the fuel filler should be placed in a location where accidental fuel spillage will not drip or drain on any part of the exhaust system.

Fuel lines shall be mounted to the chassis frame in such a manner that the frame provides the maximum possible protections from damage.

The fuel system shall comply with FMVSS No. 301.

Fuel tank(s) may be mounted between the chassis frame rails or outboard of the frame rails on either the left or right side of the vehicle.

The actual draw capacity of each fuel tank shall be 83 percent of the tank capacity.

Installation of alternative fuel systems, including fuel tanks and piping from tank to engine, shall comply with all applicable fire codes in effect on the date of manufacture of the bus.

Installation of LPG tanks shall comply with National Fire Protection Association (NFPA) 58.

## **GOVERNOR**

When engine is remotely located from driver, the governor shall be set to limit engine speed to maximum revolutions per minute recommended by engine manufacturer, and a tachometer shall be installed so the engine speed may be known to the driver while seated in a normal driving position.

## **HEATING SYSTEM, PROVISION FOR**

The chassis engine shall have plugged openings for the purpose of supplying hot water for the bus heating system. The openings shall be suitable for attaching 3/4 inch pipe thread/hose connectors. The engine shall be capable of supplying coolant at a temperature of at least 170 degrees Fahrenheit at the engine cooling thermostat opening temperature. The coolant flow rate shall be 50 pounds per minute at the return end of 30 feet of one-inch inside diameter automotive hot water heater hose. (See SBMT C-001.)

## **HORN**



Bus shall be equipped with two horns of standard make with each horn capable of producing a complex sound in bands of audio frequencies between 250 and 2,000 cycles per second and tested in accordance with SAE J-377.

## **INSTRUMENTS AND INSTRUMENT PANEL**

The chassis shall be equipped with the instruments and gauges listed below. (Telltale warning lamps in lieu of gauges are not acceptable, except as noted.)

- Speedometer
- Tachometer (gas and diesel engines)
- Odometer which will give accrued mileage (to seven digits), including tenths of miles.
- Voltmeter

(An ammeter with graduated charge and discharge indications is permitted in lieu of a voltmeter; however, when used, the ammeter wiring must be compatible with the current flow of the system.)

- Oil pressure gauge
- Water temperature gauge
- Fuel gauge
- Upper beam headlight indicator
- Brake indicator gauge (vacuum or air)

(A telltale warning lamp indicator in lieu of gauge is permitted on vehicle equipped with hydraulic-over-hydraulic brake system.

- Turn signal indicator
- Glow-plug indicator light where appropriate

All instruments shall be easily accessible for maintenance and repair.

The instruments and gauges shall be mounted on the instrument panel so that each is clearly visible to the driver while seated in a normal driving position.

The instrument panel shall have lamps of sufficient candlepower to illuminate all instruments, gauges and shift selector indicator for the automatic transmission.

### Multi-function gauge (MFG) (Optional)

- The driver must be able to manually select any displayable function of the gauge on a MFG whenever desired.
- Whenever an out-of-limits condition that would be displayed on one or more functions of a MFG occurs, the MFG controller should automatically display this condition on the instrument cluster. This should be in the form of an illuminated telltale warning lamp as well as having the MFG automatically display the out-of-limits indications. Should two or more functions displayed on the MFG go out of limits simultaneously, then the MFG should sequence automatically between those functions continuously until the condition(s) are corrected.
- The use of a MFG does not relieve the need for audible warning devices, where required.

### OIL FILTER

An oil filter with a replaceable element shall be provided and connected by flexible oil lines if it is not a built-in or an engine-mounted design. The oil filter shall have a capacity of at least one (1) quart.

### OPENINGS

All openings in the floorboard or firewall between chassis and passenger compartment (e.g., for gearshift selector and parking brakes lever) shall be sealed.

### PASSENGER LOAD

Actual gross vehicle weight (GVW) is the sum of the chassis weight, plus the body weight, plus the driver's weight, plus total seated pupil weight. For purposes of calculation, the driver's weight is 150 pounds and the pupil weight is 120 pounds per pupil.

Actual GVW shall not exceed the chassis manufacturer's GVWR for the chassis, nor shall the actual weight carried on any axle exceed the chassis manufacturer's Gross Axle Weight Rating (GVWR).

The manufacturer's GVWR for a particular school bus shall be furnished by manufacturers in duplicate (unless more copies are requested) to the purchasing school district or contractor. The school district or contractor shall, in turn, transmit such ratings to the State Department of Education Pupil Transportation Section as part of the new school bus inspection process.

### POWER AND GRADE ABILITY

GVWR shall not exceed 185 pounds per published net horsepower of the engine at the manufacturer's recommended maximum number of revolutions per minute.

## **RETARDER SYSTEM (OPTIONAL EQUIPMENT)**

School districts should, at a minimum, equip spare and activity school buses with retarder systems. (See Operations)

A retarder system, when used, shall maintain the speed of the fully loaded school bus at 19.0 mph on a seven percent grade for 3.6 miles.

## **ROAD SPEED CONTROL**

When it is desired to accurately control vehicle maximum speed, a vehicle speed limiter may be utilized.

## **SHOCK ABSORBERS**

The bus shall be equipped with double-action shock absorbers compatible with manufacturer's rated axle capacity at each wheel location. Shock absorbers shall be of sufficient length to allow for adequate travel in all situations without damage to the shock absorber or mounts.

## **STEERING GEAR**

The steering gear shall be approved by the chassis manufacturer and designed to ensure safe and accurate performance when the vehicle is operated with maximum load and at maximum speed.

If external adjustments are required, steering mechanism shall be accessible to make adjustments.

No changes shall be made in the steering apparatus which are not approved by the chassis manufacturer.

There shall be a clearance of at least two inches between the steering wheel and cowl, instrument panel, windshield, or any other surface.

Power steering is required and shall be of the integral type with integral valves.

The steering system shall be designed to provide a means for lubrication of all wear-points, which are not permanently lubricated.

## **SUSPENSION SYSTEMS**

The capacity of springs or suspension assemblies shall be commensurate with the chassis manufacturer's GVWR.

Rear leaf springs shall be of a progressive rate or multi-state design. Front leaf springs shall have a stationary eye at one end and shall be protected by a wrapped leaf, in addition to the main leaf.

## **TECHNOLOGY AND EQUIPMENT, NEW**

It is the intent of these standards to accommodate new technologies and equipment that will better facilitate the transportation of all students. When a new technology, piece of equipment or component is desired to be applied to the school bus and it meets the following criteria, it may be acceptable.

- The technology, equipment or component shall not compromise the effectiveness or integrity of any major safety system, unless it completely replaces the system. (Examples of safety systems include, but are not limited to, compartmentalization, the eight-light warning system, emergency exits, and the yellow color scheme.)
- The technology, equipment or component shall not diminish the safe environment of the interior of the bus.
- The technology, equipment or component shall not create additional risk to students who are boarding or exiting the bus or are in or near the school bus loading zone.
- The technology, equipment or component shall not create undue additional activity and/or responsibility for the driver.

The technology, equipment or component shall generally increase efficiency and/or safety of the bus, or generally provide for a safer or more pleasant experience for the occupants and pedestrians in the vicinity of the bus or generally assist the driver or make his/her many tasks easier to perform.

## **THROTTLE**

The force required to operate the throttle shall not exceed 16 pounds throughout the full range of accelerator pedal travel.

## **TIRES AND RIMS**

Rims of the proper size and tires of the proper size and load rating commensurate with the chassis manufacturer's gross vehicle weight rating shall be provided. The use of multi-piece rims and/or tube-type tires shall not be permitted on any school bus ordered after December 31, 1995.

Dual rear tires shall be provided on Type A-2, Type B, Type C and Type D school buses.

All tires on a vehicle shall be of the same size, and the load range of the tires shall meet or exceed the GVWR, as required by FMVSS 120.

If the vehicle is equipped with a spare tire and rim assembly, it shall be the same size as those mounted on the vehicle.

If a tire carrier is required, it shall be suitably mounted in an accessible location outside the passenger compartment.

## **TRANSMISSION**

Automatic transmissions shall have no fewer than three forward speeds and one reverse speed. Mechanical shift selectors shall provide a detent between each gear position when the gear selector quadrant and shift selector are not steering-column mounted.

In manual transmissions, second gear and higher shall be synchronized, except when incompatible with engine power. A minimum of three forward speeds and one reverse speed shall be provided.

An electronic control, or similar device, may be installed to ensure that automatic transmissions cannot accidentally be moved out of the "neutral" or "park" gear position while the driver is not in the driver's seat.

## **TURNING RADIUS**

A chassis with a wheelbase of 264 inches or less shall have a right and left turning radius of not more than 42½ feet, curb-to-curb measurement.

A chassis with a wheelbase of 265 inches or more shall have a right and left turning radius of not more than 44½ feet, curb-to-curb measurement.

## **UNDERCOATING**

The chassis manufacturers, or their agents, shall coat the undersides of steel or metallic-constructed front fenders with a rust-proofing compound, for which the compound manufacturer has issued notarized certification of compliance to chassis builder that the compound meets or exceeds all performance and qualitative requirements of paragraph 3.4 of Federal Specification TT-C-520B, using modified tests.

## BUS BODY STANDARDS

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### **AIR CONDITIONING (NON-REIMBURSABLE OPTION – see exception)**

Body manufacture, or after-market, installed air conditioning must meet the same requirements as those cited under “Heating and Air Conditioning.”

Reimbursement Exception: Air conditioning shall be reimbursable under the Pupil Transportation Support Program when the school district can demonstrate a need subsequent to an IDEA mandated related service.

### **AISLE**

All emergency doors shall be accessible by a 12-inch minimum aisle. The aisle shall be unobstructed at all times by any type of barrier, seat, wheelchair or tiedown. Flip seats are not allowed.

The seat backs shall be slanted sufficiently to give aisle clearance of 15 inches at tops of seat backs.

Side emergency doors in excess of FMVSS and Standards for Idaho School Buses and Operations requirements may be secured and made inoperable; however, in doing so, all emergency door labeling and operating handles shall be removed and no emergency egress aisle at that exit door shall exist.

### **BACK-UP WARNING ALARM**

An automatic audible alarm shall be installed behind the rear axle and shall comply with the published Backup Alarm Standards (SAE J994B), providing a minimum of 112 dBA.

### **BATTERY**

The battery is to be furnished by the chassis manufacturer.

When the battery is mounted as described in the "Bus Chassis Specifications", the body manufacturer shall securely attach the battery on a slide-out or swing-out tray in a closed, vented compartment in the body skirt, so that the battery is accessible for convenient servicing from the outside. The battery compartment door or cover shall be hinged at the front or top, and be secured by an adequate and conveniently operated latch or other type fastener. The battery compartment is not required on Type A-1 buses.

Buses may be equipped with a battery shut-off switch. The switch is to be placed in a location not readily accessible to the driver or passengers.

### **BUMPER: FRONT**

On a Type D school bus, if the chassis manufacturer does not provide a bumper, it shall be provided by the body manufacturer. The bumper will conform to the standards described in the "Bus Chassis Specifications."

### **BUMPER: REAR**

The bumper shall be pressed steel channel at least 3/16 inch thick or equivalent strength material (except for Type A buses). Type A-1 buses bumper shall be a minimum of 8 inches wide (high) and Type A-2, B, C and D buses bumper shall be a minimum of 9 1/2 inches wide (high). The bumper shall be of sufficient strength to permit being pushed by another vehicle without permanent distortion.

The bumper shall be wrapped around back corners of the bus. It shall extend forward at least 12 inches, measured from the rear-most point of the body at the floor line, and shall be flush-mounted to body sides or protected with an end panel.

The bumper shall be attached to the chassis frame in such a manner that it may be easily removed. It shall be so braced as to withstand impact from the rear or side. It shall be so attached as to discourage hitching of rides by an individual.

The bumper shall extend at least 1 inch beyond the rear-most part of body surface measured at the floor line.

### **CEILING**

See Insulation and Interior, this section.

### **CERTIFICATION**

The body manufacturer shall, upon request, of the State Department of Education, certify that its product meets all Standards for Idaho School Buses and Operations for items which are not covered by FMVSS certification requirements of 49 CFR, Part 567.

### **CHAINS (TIRE)**

See Wheelhousing, this section.

### **COLOR**

The school bus body shall be painted National School Bus Yellow (NSBY). (See Appendix B).

The entire rubrail and body exterior paint trim shall be black.

Optionally, the roof of the bus may be painted white except that the front and rear roof caps shall remain NSBY. (See illustration in Appendix B, under Reflective Materials.)

## **COMMUNICATIONS**

All school buses used to transport students shall be equipped with two-way voice communication other than CB radios.

## **CONSTRUCTION**

**Side Intrusion Test:** The bus body shall be constructed to withstand an intrusion force equal to the curb weight of the vehicle; but shall not exceed 20,000 pounds, whichever is less. Each vehicle shall be capable of meeting this requirement when tested in accordance with the procedures set forth below.

The complete body structure, or a representative seven-body section mock up with seats installed, shall be load-tested at a location 24 inches plus or minus two inches above the floor line, with a maximum 10-inch diameter cylinder, 48 inches long, mounted in a horizontal plane.

The cylinder shall be placed as close as practical to the mid-point of the tested structure, spanning two internal vertical structural members. The cylinder shall be statically loaded to the required force of curb weight or 20,000 pounds, whichever is less, in a horizontal plane with the load applied from the exterior toward the interior of the test structure. Once the minimum load has been applied, the penetration of the loading cylinder into the passenger compartment shall not exceed a maximum of ten inches from its original point of contact. There can be no separation of lapped panels or construction joints. Punctures, tears or breaks in the external panels are acceptable but are not permitted on any adjacent interior panel.

Body companies shall certify compliance with this intrusion requirement, including test results, if requested.

Construction shall be reasonably dust-proof and watertight.

## **CROSSING CONTROL ARM (OPTIONAL)**

Buses may be equipped with a crossing control arm mounted on the right side of the front bumper. This arm when opened shall extend in a line parallel with the body side and positioned on a line with the right side wheels.

All components of the crossing control arm and all connections shall be weatherproofed.

The crossing control arm shall incorporate system connectors (electrical, vacuum, or air) at the gate and shall be easily removable to allow for towing of the bus.

The crossing control arm shall meet or exceed SAE Standard J1133.

The crossing control arm shall be constructed of noncorrosive or nonferrous material or treated in accordance with the body sheet metal specifications. (see METAL TREATMENT)



There shall be no sharp edges or projections that could cause hazard or injury to students.

The crossing control arm shall extend a minimum of 70 inches (measured from the bumper at the arm assembly attachment point) when in the extended position.

The crossing control arms shall extend simultaneously with the stop arm(s) by means of the stop arm controls.

An automatic recycling interrupt switch should be installed for temporary disabling of the crossing control arm.

## **DEFROSTERS**

Defrosting and defogging equipment shall direct a sufficient flow of heated air onto the windshield, the window to the left of the driver and the glass in the viewing area directly to the right of the driver to eliminate frost, fog and snow.

The defrosting system shall conform to SAE J381 and J382.

The defroster and defogging system shall be capable of furnishing heated, outside ambient air, except that the part of the system furnishing additional air to the windshield, entrance door and stepwell may be of the recirculating air type.

Auxiliary fans are not considered defrosting or defogging systems.

Portable heaters shall not be used. Low profile heaters are not allowed within the clear floor area required to accommodate a wheelchair.

## **DOORS, SERVICE**

The service door shall be in the driver's control, designed to afford easy release and provide a positive latching device on manual operating doors to prevent accidental opening. When a hand lever is used, no part shall come together that will shear or crush fingers. Manual door controls shall not require more than 25 pounds of force to operate at any point throughout the range of operation, as tested on a 10 percent grade both uphill and downhill.

The service door shall be located on the right side of the bus, opposite and within direct view of driver.

The service door shall have a minimum horizontal opening of 24 inches and a minimum vertical opening of 68 inches. Type A-I vehicles shall have a minimum opening area of 1,200 square inches.

Service door shall be a split-type, sedan-type, or jack-knife type. (Split-type door includes any sectioned door which divides and opens inward or outward.) If one section of a split-type door opens inward and the other opens outward, the front section shall open outward.

Lower, as well as upper, door panels shall be of approved safety glass. The bottom of each lower glass panel shall not be more than ten inches from the top surface of the bottom step. The top of each upper glass panel shall not be more than three inches from the top of the door. Type A vehicles shall have an upper panel (windows) of safety glass with an area of at least 350 square inches.

Vertical closing edges on split-type or folding-type entrance doors shall be equipped with flexible material to protect children's fingers. Type A-1 vehicles may be equipped with the chassis manufacturer's standard entrance door.

There shall be no door to left of driver on Type B, C or D vehicles. All Type A vehicles may be equipped with the chassis manufacturer's standard left-side door.

All doors shall be equipped with padding at the top edge of each door opening. Padding shall be at least three inches wide and one inch thick and extend the full width of the door opening.

On power-operated service doors, the emergency release valve, switch or device to release the service door must be placed above or to the immediate left or right of the service door and clearly labeled.

## **EMERGENCY EXITS AND EMERGENCY EXIT ALARM SYSTEMS**

All installed emergency exits and all exit alarm systems shall comply with the requirements of FMVSS No. 217.

The upper portion of the emergency door shall be equipped with approved safety glazing, the exposed area of which shall be at least 400 square inches. The lower portion of the rear emergency doors on Types A-2, B, C, and D vehicles shall be equipped with a minimum of 350 square inches of approved safety glazing.

There shall be no steps leading to an emergency door.

The words "EMERGENCY DOOR" or "EMERGENCY EXIT," in letters at least 2" high, shall be placed at the top of or directly above the emergency exit, or on the door in the metal panel above the top glass, both inside and outside the bus.

Operation instructions shall be located at or near the emergency exit release handle, both inside and outside of the bus. Outside may consist of a black arrow pointing in direction of handle travel. **No other lettering shall obstruct or interfere with the placement of operation instructions mounted on the exterior of the emergency exit door.**

The emergency door(s) shall be equipped with padding at the top edge of each door opening. Padding shall be at least three inches wide and one-inch thick, and shall extend the full width of the door opening.

There shall be no obstruction higher than 1/4 inch across the bottom of any emergency door opening.

The rear emergency window shall have an assisted lifting device that will aid in lifting and holding the rear emergency window open.

Types A, B, C and D vehicles shall be equipped with a total number of emergency exits as follows for the indicated capacities of vehicles. Exits required by FMVSS 217 may be included to comprise the total number of exits specified.

O to 42 Passengers	= 1 emergency exit per side and 1 roof hatch.
43 to 78 Passengers	= 2 emergency exits per side and 2 roof hatches.
79 to 90 Passengers	= 3 emergency exits per side and 2 roof hatches.

Side emergency exit windows, when installed, may be vertically hinged on the forward side of the window. No side emergency exit window will be located above a stop arm. Emergency exit doors, side emergency exit windows and emergency exit roof hatches shall be strategically located for optimal egress during an emergency evacuation of the bus.

Emergency exit doors shall include an alarm system that includes an audible warning device at the emergency door exit and also in the driver's compartment. Emergency exit side windows shall include an alarm system that includes an audible warning device in the driver's compartment. Roof hatches do not require an alarm system, but if so equipped, they must be operable and include an audible warning device in the driver's compartment.

## EMERGENCY EQUIPMENT

### Fire extinguisher:

The bus shall be equipped with at least one UL-approved pressurized, dry chemical fire extinguisher complete with hose. The extinguisher shall be mounted and secured in a bracket, located in the driver's compartment and readily accessible to the driver and passengers. A pressure gauge shall be mounted on the extinguisher and be easily read without moving the extinguisher from its mounted position.

The fire extinguisher shall have a total rating of 2A10BC or greater. The operating mechanism shall be sealed with a type of seal that will not interfere with the use of the fire extinguisher.

### First-aid kit:

The bus shall have a removable moisture-proof and dust-proof first aid kit sealed with a breakable type seal and mounted in the driver's compartment in a location that is physically

**accessible to all drivers.** It shall be properly mounted and secured and identified as a first aid kit. The location for the first aid kit shall be marked.

Contents shall include:

- 2 – 1 inch x 2 1/2 yards adhesive tape rolls
- 24 - sterile gauze pads 3 inches x 3 inches
- 100 - 3/4 inch x 3 inches adhesive bandages
- 8 - 2 inch bandage compress
- 10 – 3 inch bandage compress
- 2 – 2 inch x 6 feet sterile gauze roller bandages
- 2 - non-sterile triangular bandages approximately 39 inches x 35 inches x 54 inches with 2 safety pins
- 3 - sterile gauze pads 36 inches x 36 inches
- 3 - sterile eye pads
- 1 - rounded-end scissors
- 1 - pair latex glove
- 1 - mouth-to-mouth airway

#### **Body fluid clean-up kit:**

Each bus shall have a removable and moisture-proof body fluid clean-up kit. It shall be sealed with a breakable type seal. It shall be properly mounted **in the driver's compartment in a location that is physically accessible to all drivers** and identified as a body fluid clean-up kit.

Contents shall include:

- One (1) pair latex gloves
- Absorbent
- One (1) scoop
- One (1) scraper or hand broom
- Disinfectant
- Two (2) plastic bags

#### **Warning devices:**

Each school bus shall contain at least three (3) reflectorized triangle road warning devices mounted in an accessible place that meet requirements in FMVSS 125.

Any of the emergency equipment may be mounted in an enclosed compartment, provided the compartment is labeled in not less than one-inch letters, identifying each piece of equipment contained therein.

Flares and axes are not allowed on school buses.

## **FLOORS**

The floor in the under-seat area, including tops of wheelhousing, driver's compartment and toeboard, shall be covered with rubber floor covering or equivalent, having a minimum overall thickness of .125 inch. The driver's area on all Type A buses may be manufacturer's standard flooring and floor covering.

The floor covering in the aisles shall be of aisle-type rubber or equivalent, wear-resistant and ribbed. Minimum overall thickness shall be .187 inch measured from tops of ribs.

The floor covering must be permanently bonded to the floor and must not crack when subjected to sudden changes in temperature. Bonding or adhesive material shall be waterproof and shall be a type recommended by the manufacturer of floor-covering material. All seams must be sealed with waterproof sealer.

On Types B, C and D buses, a flush-mounted, screw-down plate that is secured and sealed shall be provided to access the fuel tank sending unit.

Low profile heaters are not allowed within the clear floor area required to accommodate a wheelchair.

## **HANDRAILS**

At least one handrail shall be installed. The handrail(s) shall assist passengers during entry or exit, and be designed to prevent entanglement, as evidenced by the passage of the NHTSA string and nut test. Refer to "Out of Service" criteria and diagram (Appendix ??).

## **HEATERS AND AIR CONDITIONING SYSTEMS**

### **Heating System:**

The heater shall be hot water and/or combustion type.

If only one heater is used, it shall be fresh-air or combination fresh-air and recirculation type.

If more than one heater is used, additional heaters may be recirculating air type.

The heating system shall be capable of maintaining bus interior temperatures as specified in SAE test procedure J2233.

Auxiliary fuel-fired heating systems are permitted, provided they comply with the following:

- The auxiliary heating system fuel shall utilize the same type fuel as specified for the vehicle engine.
- The heater(s) may be direct hot air or connected to the engine's coolant system.

- An auxiliary heating system, when connected to the engine's coolant system, may be used to preheat the engine coolant or preheat and add supplementary heat to the bus's heating system.
- Auxiliary heating systems must be installed pursuant to the manufacturer's recommendations and shall not direct exhaust in such a manner that will endanger bus passengers.
- Auxiliary heating systems which operate on diesel fuel shall be capable of operating on #1, #2 or blended diesel fuel without the need for system adjustment.
- The auxiliary heating system shall be low voltage.
- Auxiliary heating systems shall comply with all applicable FMVSSs including FMVSS No. 301, as well as with SAE test procedures.

All forced air heaters installed by body manufacturers shall bear a name plate that indicates the heater rating in accordance with SBMTC-001. The plate shall be affixed by the heater manufacturer and shall constitute certification that the heater performance is as shown on the plate. Low profile heaters are not allowed within the clear floor area required to accommodate a wheelchair.

Heater hoses shall be adequately supported to guard against excessive wear due to vibration. The hoses shall not dangle or rub against the chassis or any sharp edges and shall not interfere with or restrict the operation of any engine function. Heater hoses shall conform to SAE J20c. Heater lines on the interior of bus shall be shielded to prevent scalding of the driver or passengers. **All heater hose shields shall completely cover all parts of the hose and connectors. They shall not incorporate any openings that would allow a passenger to be injured by sharp edges or hot surfaces.**

Each hot water system installed by a body manufacturer shall include one shut-off valve in the pressure line and one shut-off valve in the return line with both valves at the engine in an accessible location, except that on all Types A and B buses, the valves may be installed in another accessible location.

There shall be a water flow regulating valve installed in the pressure line for convenient operation by the driver while seated.

All combustion heaters shall be in compliance with current Federal Motor Carrier Safety Regulations.

Accessible bleeder valves shall be **labeled and** installed in an appropriate place in the return lines of body company-installed heaters to remove air from the heater lines.

Access panels shall be provided to make heater motors, cores, and fans readily accessible for service. An outside access panel may be provided for the driver's heater.

### **Air Conditioning (Non-Reimbursable Option):**

The following specifications are applicable to all types of school buses that may be equipped with air conditioning. This section is divided into two parts:

Part 1 covers performance specifications and Part 2 covers other requirements applicable to all buses.

#### **Part 1 - Performance Specifications:**

The installed air conditioning system should cool the interior of the bus down to at least 80 degrees Fahrenheit, measured at a minimum of three points, located four feet above the floor at the longitudinal centerline of the bus. The three points shall be: (1) near the driver's location, (2) at the mid point of the body, and (3) two feet forward of the rear emergency door, or, for Type D rear-engine buses, two feet forward of the end of the aisle.

The test conditions under which the above performance must be achieved shall consist of: (1) placing the bus in a room (such as a paint booth) where ambient temperature can be maintained at 100 degrees Fahrenheit (2) heat soaking the bus at 100 degrees Fahrenheit with windows open for at least one hour and (3) closing windows, turning on the air conditioner with the engine running at the chassis manufacturer's recommended low idle speed, and cooling the interior of the bus to 80 degrees Fahrenheit or lower within a maximum of 30 minutes while maintaining 100 degrees Fahrenheit outside temperature.

Alternately, and at the user's discretion, this test may be performed under actual summer conditions, which consist of temperatures above 85 degrees Fahrenheit, humidity above 50 percent with normal sun loading of the bus and the engine running at the manufacturer's recommended low idle speed. After a minimum of one hour of heat soaking, the system shall be turned on and must provide a minimum 20 degree temperature drop in the 30-minute time limit.

The manufacturer shall provide facilities for the user or user's representative to confirm that a pilot model of each bus design meets the above performance requirements.

#### **Part 2 - Other Requirements:**

Evaporator cases, lines and ducting (as equipped) shall be designed in such a manner that all condensation is effectively drained to the exterior of the bus below the floor level under all conditions of vehicle movement and without leakage on any interior portion of bus.

Any evaporator or ducting system shall be designed and installed so as to be free of injury-prone projections or sharp edges. Any ductwork shall be installed so that exposed edges face the front of the bus and do not present sharp edges.

On specially equipped school buses, the evaporator and ducting (if used) shall be placed high enough that they will not obstruct occupant securement shoulder strap upper attachment points. This clearance shall be provided along entire length of the passenger area on both sides of the bus interior to allow for potential retrofitting of new wheelchair positions and occupant securement devices throughout the bus.

The body may be equipped with insulation, including sidewalls, roof, firewall, rear, inside body bows and plywood or composite floor insulation to aid in heat dissipation and reflection.

All glass (windshield, service and emergency doors, side and rear windows) may be equipped with maximum integral tinting allowed by federal, state or ANSI standards for the respective locations, except that windows rear of the driver's compartment, if tinted, shall have approximately 28 percent light transmission.

Electrical generating capacity shall be provided to accommodate the additional electrical demands imposed by the air conditioning system.

Roofs may be painted white to aid in heat dissipation. (See Appendix B)

## **HINGES**

All exterior metal door hinges which do not have stainless steel, brass or nonmetallic hinge pins or other designs that prevent corrosion shall be designed to allow lubrication to be channeled to the center 75 percent of each hinge loop without disassembly.

## **IDENTIFICATION**

The body shall bear the words "SCHOOL BUS" in black letters at least eight inches high on both front and rear of the body or on signs attached thereto. Lettering shall be placed as high as possible without impairment of its visibility. Letters shall conform to "Series B" of Standard Alphabets for Highway Signs. "SCHOOL BUS" lettering shall have a reflective background, or as an option, may be illuminated by backlighting.

### **Required lettering and numbering shall include:**

School district owned vehicles will be identified with black lettering (minimum four inches (4") high) on both sides of the school bus using the district name and number listed in the Idaho Educational Directory. Exception: Contractor-owned buses registered under P.U.C. (Public Utilities Commission) regulations must meet P.U.C. identification standards in addition to meeting the same identification standards as district-owned buses. Contractor buses shall be identified by either the contractor or district name as decided by the district.

Each bus will be separately identified with its own number in two (2) places on each side of the bus in the logo panel/belt line using six inch (6") high black numbers. Numbers on the passenger side shall be as close to the first and last windows as possible and on the driver's side as close to the stop arm and last window as possible.



Unauthorized entry placards shall be displayed in the most visible location when observed by persons approaching the vehicle with the door in the open position. Durability of the placard should also be considered when choosing a location for its placement. Placard shall read as follows:

**WARNING  
IT IS UNLAWFUL TO:**

- **Enter a school bus with the intent to commit a crime**
- **Enter a school bus and disrupt or interfere with the driver**
- **Refuse to disembark after ordered to do so**  
**(18-1522; 18-113, Idaho Code)**

Other lettering, numbering, or symbols, which may be displayed on the exterior of the bus, shall be limited to:

- Bus identification number on the top, front and rear of the bus, in addition to the required numbering on the sides.
- The location of the battery(ies) identified by the word “BATTERY” or “BATTERIES” on the battery compartment door in two-inch lettering.
- Symbols or letters not to exceed 64 square inches of total display near the service door, displaying information for identification by the students of the bus or route served.
- Manufacturer, dealer or school identification or logos.
- Symbols identifying the bus as equipped for or transporting students with special needs (see Specially Equipped School Bus section).
- Lettering on the rear of the bus relating to school bus flashing signal lamps or railroad stop procedures. **This lettering shall not obscure or interfere with the operation instructions displayed on the exterior portion of the rear emergency exit door.**
- Identification of fuel type in two-inch lettering adjacent to the fuel filler opening.
- One (3” x 5” maximum) decal promoting school bus safety on rear bumper.

**INSIDE HEIGHT**

Inside body height shall be 72" or more, measured metal to metal, at any point on longitudinal centerline from front vertical bow to rear vertical bow. Inside body height of Type A-1 buses shall be 62" or more.

**INSULATION (OPTIONAL)**

If thermal insulation is specified, it shall be fire-resistant, UL approved, with minimum R-value of 5.5. Insulation shall be installed so as to prevent sagging.

If floor insulation is required, it shall be five ply nominal 5/8 inch thick plywood, and it shall equal or exceed properties of the exterior-type softwood plywood, C-D Grade, as specified in standard issued by U.S. Department of Commerce. When plywood is used, all exposed edges shall be sealed. Type A-1 buses may be equipped with nominal 1/2 inch thick plywood or equivalent material meeting the above requirements. Equivalent material may be used to replace plywood, provided it has an equal or greater insulation R value, deterioration, sound abatement and moisture resistance properties.

## **INTERIOR**

The interior of bus shall be free of all unnecessary projections, which include luggage racks and attendant handrails, to minimize the potential for injury. This specification requires inner lining on ceilings and walls. If ceiling is constructed to contain lapped joints, the forward panel shall be lapped by rear panel and exposed edges shall be beaded, hemmed, flanged, or otherwise treated to minimize sharp edges. Buses may be equipped with a storage compartment for tools, tire chains and/or tow chains. (see STORAGE COMPARTMENT)

Interior overhead storage compartments may be provided if they meet the following criteria:

- Meet head protection requirements of FMVSS 222, where applicable.
- Have a maximum rated capacity displayed for each compartment.
- Be completely enclosed and equipped with latching doors which must be sufficient to withstand a force of five times the maximum rated capacity of the compartment.
- Have all corners and edges rounded with a minimum radius of one-inch or padded equivalent to door header padding.
- Be attached to the bus sufficiently to withstand a force equal to twenty times the maximum rated capacity of the compartment.
- Have no protrusions greater than 1/4 inch.

The driver's area forward of the foremost padded barriers will permit the mounting of required safety equipment and vehicle operation equipment. All equipment necessary for the operation of the vehicle shall be properly secured

Every school bus shall be constructed so that the noise level taken at the ear of the occupant nearest to the primary vehicle noise source shall not exceed 85 dbA when tested according to the procedure in Appendix B.

Low profile heaters are not allowed within the clear floor area required to accommodate a wheelchair.

## **LAMPS AND SIGNALS**

Interior lamps shall be provided which adequately illuminate the aisle and stepwell. The stepwell light shall be illuminated by a service door-operated switch, to illuminate only when headlights and clearance lights are on and service door is open. **An additional exterior mounted light shall be mounted next to the service door to adequately illuminate the approach to the door. It shall be actuated simultaneously with the stepwell light.**

Body instrument panel lights shall be controlled by an independent rheostat switch.

### **School Bus Alternately Flashing Signal Lamps:**

The bus shall be equipped with two red lamps at the rear of vehicle and two red lamps at the front of the vehicle.

In addition to the four red lamps described above, four amber lamps shall be installed so that one amber lamp is located near each red signal lamp, at the same level, but closer to the vertical centerline of bus. The system of red and amber signal lamps shall be wired so that amber lamps are energized manually, and red lamps are automatically energized (with amber lamps being automatically de-energized) when stop signal arm is extended or when bus service door is opened. An amber pilot light and a red pilot light shall be installed adjacent to the driver controls for the flashing signal lamp to indicate to the driver which lamp system is activated.

Air and electrically operated doors shall be equipped with an over-ride switch that will allow the amber lamps to be energized without opening the door.

The area around the lenses of alternately flashing signal lamps extending outward from the edge of the lamps three inches (+/- ¼ inch) to the sides and top and minimum one inch to the bottom, shall be black in color on the body or roof area against which the signal lamp is seen (from a distance of 500 feet along axis of the vehicle).

Visors or hoods over the lights shall be provided and shall be black in color, with a minimum depth of four inches. (See Appendix B.)

Red lamps shall flash at any time the stop signal arm is extended.

All flashers for alternately flashing red and amber signal lamps shall be enclosed in the body in a readily accessible location.

### **Turn Signal and Stop/Tail Lamps:**

Bus body shall be equipped with amber **front and** rear turn signal lamps that are at least seven inches in diameter or, if a shape other than round, a minimum 38 square inches of illuminated

area and shall meet SAE specifications. These signal lamps must be connected to the chassis hazard warning switch to cause simultaneous flashing of turn signal lamps when needed as vehicular traffic hazard warning. **Rear** turn signal lamps are to be placed as wide apart as practical and their centerline shall be a maximum of 12 inches below the rear window. Type A-1 conversion vehicle **front** lamps must be at least 21 square inches in lens area and must be in the manufacturer's standard color.

Buses shall be equipped with amber side-mounted turn signal lights. **One** turn signal lamp on the left side shall be mounted rearward of the stop signal arm and **one** turn signal lamp on the right side shall be mounted rearward of the service door. **Both front side-mounted turn signal lamps shall be mounted forward of the bus center-line. An additional side mounted turn signal lamp may be mounted on each side of the bus to the rear of the bus center-line.**

Buses shall be equipped with four combination red stop/tail lamps:

- Two combination lamps with a minimum diameter of seven inches, or if a shape other than round, a minimum 38 square inches of illuminated area shall be mounted on the rear of the bus just inside the turn signal lamps.
- Two combination lamps with a minimum diameter of four inches, or if a shape other than round, a minimum of 12 square inches of illuminated area, shall be placed on the rear of the body between the beltline and the floor line. The rear license plate lamp may be combined with one lower tail lamp. Stop lamps shall be activated by the service brakes and shall emit a steady light when illuminated. Type A-1 buses with bodies supplied by chassis manufacturer may be equipped with manufacturer's standard stop and tail lamps.

On buses equipped with a monitor for the front and rear lamps of the school bus, the monitor shall be mounted in full view of the driver. If the full circuit current passes through the monitor, each circuit shall be protected by a fuse or circuit breaker against any short circuit or intermittent shorts.

An optional white flashing strobe light may be installed on the roof of a school bus, at a location not to exceed 1/3 the body length forward from the rear of the roof edge. The light shall have a single clear lens emitting light 360 degrees around its vertical axis and may not extend above the roof more than maximum legal height. A manual switch and a pilot light shall be included to indicate when light is in operation. Operation of the strobe light is limited to periods of inclement weather and nighttime driving or whenever students are on-board. Optionally, the strobe light may be mounted on the roof in the area directly over the restraining barrier on the driver's side, may be wired to activate with the amber alternately flashing signal lamps, continuing through the full loading or unloading cycle, and may be equipped with an override switch to allow activation of the strobe at any time for use in inclement weather or emergency situation.

The bus body shall be equipped with two white rear backup lamp signals that are at least four inches in diameter or, if a shape other than round, a minimum of 13 square inches of illuminated

area, meeting FMVSS No. 108. If backup lamps are placed on the same horizontal line as the brake lamps and turn signal lamps, they shall be to the inside.

## **METAL TREATMENT**

All metal used in construction of the bus body shall be zinc-coated or aluminum-coated or treated by equivalent process before bus is constructed. Included are such items as structural members, inside and outside panels, door panels and floor sills. Excluded are such items as door handles, grab handles, interior decorative parts and other interior plated parts.

All metal parts that will be painted, in addition to above requirements, shall be chemically cleaned, etched, zinc phosphate-coated and zinc chromate-or epoxy-primed, or the metal may be conditioned by an equivalent process.

In providing for these requirements, particular attention shall be given to lapped surfaces, welded connections of structural members, cut edges on punched or drilled hole areas in sheet metal, closed or box sections, unvented or undrained areas and surfaces subjected to abrasion during vehicle operation.

As evidence that above requirements have been met, samples of materials and sections used in the construction of the bus body shall not lose more than 10 percent of material by weight when subjected to a 1,000-hour salt spray test as provided for in latest revision of ASTM Standard B-117.

## **MIRRORS**

The interior mirror shall be either clear view laminated glass or clear view glass bonded to a backing which retains the glass in the event of breakage. The mirror shall have rounded corners and protected edges. All Type A buses shall have a minimum of a six-inch x 16 inch mirror and Types B, C, and D buses shall have a minimum of a six-inch x 30-inch mirror.

Each school bus shall be equipped with exterior mirrors meeting the requirements of FMVSS No. 111. Mirrors shall be easily adjustable, but shall be rigidly braced so as to reduce vibration.

Heated external mirrors may be used.

## **MOUNTING**

The chassis frame shall support the rear body cross member. The bus body shall be attached to chassis frame at each main floor sill, except where chassis components interfere, in such manner as to prevent shifting or separation of the body from the chassis under severe operating conditions.

Isolators shall be installed at all contact points between body and chassis frame on Types A-2, B, C, and D buses, and shall be secured by a positive means to the chassis frame or body to prevent shifting, separation, or displacement of the isolators under severe operating conditions.

## **OVERALL LENGTH**

Overall length of bus shall not exceed 45 feet, excluding accessories.

## **OVERALL WIDTH**

Overall width of bus shall not exceed 102 inches, excluding accessories.

## **PUBLIC ADDRESS SYSTEM**

Buses may be equipped with AM/FM audio and/or public address system having interior or exterior speakers.

No internal speakers, other than the driver's communication systems, may be installed within four feet of the driver's seat back in its rearmost upright position.

## **REFLECTIVE MATERIAL (see Reflective Material, Appendix B)**

The front and/or rear bumper may be marked diagonally 45 degrees down to centerline of pavement with two-inch  $\pm\frac{1}{4}$  inch wide strips of non-contrasting reflective material.

The rear of bus body shall be marked with strips of reflective NSBY material to outline the perimeter of the back of the bus using material which conforms with the requirements of FMVSS No. 131, Table 1. The perimeter marking of rear emergency exits per FMVSS No. 217 and/or the use of reflective "SCHOOL BUS" signs partially accomplish the objective of this requirement. To complete the perimeter marking of the back of the bus, strips of at least 1  $\frac{3}{4}$  inch reflective NSBY material shall be applied horizontally above the rear windows and above the rear bumper, extending from the rear emergency exit perimeter, marking outward to the left and right rear corners of the bus. Vertical strips shall be applied at the corners connecting these horizontal strips.

"SCHOOL BUS" signs, if not of lighted design, shall be marked with reflective NSBY material comprising background for lettering of the front and/or rear "SCHOOL BUS" signs.

Sides of bus body shall be marked with at least 1  $\frac{3}{4}$  inch reflective NSBY material, extending the length of the bus body and located (vertically) between the floor line and the beltline.

Signs, if used, placed on the rear of the bus relating to school bus flashing signal lamps or railroad stop procedures may be of reflective material.

## **RUB RAILS**

There shall be one rub rail located on each side of the bus approximately at seat cushion level which extends from the rear side of the entrance door completely around the bus body (except

the emergency door or any maintenance access door) to the point of curvature near the outside cowl on the left side.

There shall be one additional rub rail located on each side at, or no more than ten inches above the floor line. The rub rail shall cover the same longitudinal area as upper rub rail, except at the wheelhousings, and it shall extend only to radii of the right and left rear corners.

Both rub rails shall be attached at each body post and all other upright structural members.

Each rub rail shall be four inches or more in width in their finished form, shall be constructed of 16-gauge steel or suitable material of equivalent strength and shall be constructed in corrugated or ribbed fashion. Each rub rail shall be black in color.

Both rub rails shall be applied outside the body or outside the body posts. Pressed-in or snap-on rub rails do not satisfy this requirement. For Type A-1 vehicles using the body provided by the chassis manufacturer or for Types A-2, B, C and D buses using the rear luggage or the rear engine compartment, rub rails need not extend around the rear corners.

There shall be a rub rail or equivalent bracing located horizontally at the bottom edge of the body side skirts.

## **SEAT AND RESTRAINING BARRIERS**

### **Passenger Seating:**

All seats shall have a minimum cushion depth of 15 inches and must comply with all requirements of FMVSS No. 222. School bus design capacities shall be in accordance with 49 CFR, Part 571.3 and FMVSS No. 222.

All restraining barriers and passenger seats may be constructed with materials that enable them to meet the criteria contained in the School Bus Seat Upholstery Fire Block Test (See Appendix B.) **Fire block seating is a non-reimbursable expense.**

Each seat leg shall be secured to the floor by a minimum of two bolts, washers, and nuts. Flange-head nuts may be used in lieu of nuts and washers, or seats may be track-mounted in conformance with FMVSS 222. If track seating is installed, the manufacturer shall supply minimum and maximum seat spacing dimensions applicable to the bus, which comply with FMVSS 222. This information shall be on a label permanently affixed to the inside of the bus.

All seat frames attached to the seat rail shall be fastened with two bolts, washers and nuts or flange-head nuts.

All school buses (including Type A) shall be equipped with restraining barriers which conform to FMVSS 222.

The use of a “flip seat” adjacent to any side emergency door is prohibited.

### **~~Pre School Age Seating:~~**

~~When installed, all passenger seats designed to accommodate a child or infant carrier seat shall comply with FMVSS No. 225. These seats shall be in compliance with NHTSA's "Guideline for the Safe Transportation of Pre-school Age Children in School Buses." (see Appendix ??)~~

### **~~Driver Seat:~~**

~~The driver's seat supplied by the body company shall be a high back seat with a minimum seat back adjustable to 15 degrees, without requiring the use of tools, and a head restraint to accommodate a 95th percentile adult male, as defined in FMVSS No. 208. The driver's seat positioning and range of adjustments shall be designed to accommodate comfortable actuation of the foot control pedals by 95% of the male/female adult population. If installed, a driver's suspension seat must be one of three types: air, hydraulic or spring. A pedestal type seat with a center spring is not considered a suspension seat. The driver's seat shall be secured with nuts, bolts and washers or flanged head nuts.~~

~~Type A buses may use the standard driver's seat provided by the chassis manufacturer.~~

### **~~Driver Restraint System:~~**

~~A Type 2 lap/shoulder belt shall be provided for the driver. The assembly shall be equipped with an automatic locking retractor for the continuous belt system. On all buses except Type A equipped with a standard chassis manufacturer's driver's seat, the lap portion of the belt system shall be guided or anchored to prevent the driver from sliding sideways under it. The lap/shoulder belt shall be designed to allow for easy adjustment in order to fit properly and to effectively protect drivers varying in size from 5th percentile adult female to 95th percentile adult male.~~

~~All buses shall be equipped with a seat belt cutting device secured in a location that is easily accessible to the driver while properly belted.~~

## **STEERING WHEEL**

See Chassis section

## **STEPS**



The first step at service door shall be not less than ten inches and not more than 14 inches from the ground when measured from top surface of the step to the ground, based on standard chassis specifications, except that on Type D vehicles, the first step at the service door shall be 12 inches to 16 inches from the ground. On chassis modifications which may result in increased ground clearance (such as four-wheel drive) an auxiliary step shall be provided to compensate for the increase in ground-to-first-step clearance. The auxiliary step is not required to be enclosed.

Step risers shall not exceed a height of ten inches. When plywood is used on a steel floor or step, the riser height may be increased by the thickness of the plywood.

Steps shall be enclosed to prevent accumulation of ice and snow.

Steps shall not protrude beyond the side body line.

## **STEP TREADS**

All steps, including the floor line platform area, shall be covered with 3/16 inch rubber floor covering or other materials equal in wear and abrasion resistance to top grade rubber.

The metal back of the tread shall be permanently bonded to the step tread material.

Steps, including the floor line platform area, shall have a 1 1/2 inch nosing that contrasts in color by at least 70 percent measured in accordance with the contrasting color specification in 36 CFR, Part 1192 ADA, Accessibility Guidelines for Transportation Vehicles.

Step treads shall have the following characteristics:

- Special compounding for good abrasion resistance and coefficient of friction of at least 0.6 for the step surface, and 0.8 for the step nosing.
- Flexibility so that it can be bent around a 1/2" mandrel both at 130 degrees Fahrenheit and 20 degrees Fahrenheit without breaking, cracking, or crazing.
- A durometer hardness 85 to 95.

## **STIRRUP STEPS**

Unless the windshield and lamps are not easily accessible from the ground, there may be at least one folding stirrup step or recessed foothold and suitably located handles on each side of the front of the body for easy accessibility for cleaning. Steps are permitted in or on the front bumper in lieu of the stirrup steps, if the windshield and lamps are easily accessible for cleaning from that position.

## **STOP SIGNAL ARM**

The stop signal arm(s) shall comply with the requirements of FMVSS 131.

## **STORAGE COMPARTMENT (OPTIONAL)**

A storage container for tools, tire chains, and/or tow chains may be located either inside or outside the passenger compartment. If inside, it shall have a cover capable of being securely latched and fastened to the floor, convenient to either the service door or the emergency door. (The seat cushion may not serve this purpose.)

## **SUN SHIELD**

An interior adjustable transparent sun shield, with a finished edge and not less than six inches X 30 inches for Types B, C, and D vehicles, shall be installed in a position convenient for use by the driver.

On all Type A buses the sun shield (visor) shall be installed according to the manufacturer's standard.

## **TAILPIPE**

The tailpipe may be flush with, but shall not extend out more than two inches beyond, the perimeter of the body for side-exit pipe or the bumper for rear-exit pipe.

The tailpipe shall exit to the left or right of the emergency exit door in the rear of vehicle or to the left side of the bus in front or behind the rear drive axle. The tailpipe exit location on Types A-1 or B-1 buses may be according to the manufacturer's standard. The tailpipe shall not exit beneath any fuel filler location or beneath any emergency door.

## **TECHNOLOGY AND EQUIPMENT, NEW**

It is the intent of these standards to accommodate new technologies and equipment that will better facilitate the transportation of all students. When a new technology, piece of equipment or component is desired to be applied to the school bus and it meets the following criteria, it may be acceptable.

- The technology, equipment or component shall not compromise the effectiveness or integrity of any major safety system, unless it completely replaces the system. (Examples of safety systems include, but are not limited to, compartmentalization, the eight-light warning system, emergency exits, and the yellow color scheme.)
- The technology, equipment or component shall not diminish the safe environment of the interior of the bus.
- The technology, equipment or component shall not create additional risk to students who are boarding or exiting the bus or are in or near the school bus loading zone.

- The technology, equipment or component shall not create undue additional activity and/or responsibility for the driver.

The technology, equipment or component shall generally increase efficiency and/or safety of the bus, or generally provide for a safer or more pleasant experience for the occupants and pedestrians in the vicinity of the bus or generally assist the driver or make his/her many tasks easier to perform.

## **TOW ATTACHMENT POINTS**

Towing devices **shall** be furnished on the rear and attached so they do not project beyond the rear bumper. Towing devices for attachment to the rear of the chassis frame shall be furnished by either the chassis or body manufacturer. The installation shall be in accordance with the chassis manufacturer's specifications.

## **TRACTION ASSISTING DEVICES (OPTIONAL)**

Where required or used, sanders shall:

- Be of hopper cartridge-valve type.
- Have a metal hopper with all interior surfaces treated to prevent condensation of moisture.
- Be of at least 100 pound (grit) capacity.
- Have a cover on the filler opening of hopper, which screws into place, thereby sealing the unit airtight.
- Have discharge tubes extending to the front of each rear wheel under the fender.
- Have non-clogging discharge tubes with slush-proof, non-freezing rubber nozzles.
- Be operated by an electric switch with a telltale pilot light mounted on the instrument panel.
- Be exclusively driver-controlled.
- Have a gauge to indicate that the hopper needs refilling when it reaches one-quarter full.

Automatic traction chains may be installed.

## **TRASH CONTAINER AND HOLDING DEVICE (OPTIONAL)**

Where requested or used, the trash container shall be secured by a holding device that is designed to prevent movement and to allow easy removal and replacement; and it shall be

installed in an accessible location in the driver's compartment, not obstructing passenger use of the service door **or the entrance grab handle**, and in such a way as to prevent the entanglement of clothing, backpack straps, draw strings, etc.

## **UNDERCOATING**

The entire underside of the bus body, including floor sections, cross member and below floor line side panels, shall be coated with rust-proofing material for which the material manufacturer has issued a notarized certification of compliance to the bus body builder that materials meet or exceed all performance and qualitative requirements of paragraph 3.4 of Federal Specification TT-C-520b, using modified test procedures\* for the following requirements:

- Salt spray resistance-pass test modified to 5 percent salt and 1000 hours
- Abrasion resistance-pass
- Fire resistance-pass

\*Test panels are to be prepared in accordance with paragraph 4.6.12 of TT-C-520b with modified procedure requiring that test be made on a 48-hour air cured film at thickness recommended by compound manufacturer.

The undercoating material shall be applied with suitable airless or conventional spray equipment to recommended film thickness and shall show no evidence of voids in the cured film.

## **VENTILATION**

Auxiliary fans shall meet the following requirements:

- Fans for left and right sides shall be placed in a location where they can be adjusted for maximum effectiveness and where they do not obstruct vision to any mirror or through the windshield. Note: All Type A buses may be equipped with one fan.
- Fans shall be of six inch nominal diameter.
- Fan blades shall be covered with a protective cage. Each fan shall be controlled by a separate switch.

The bus body shall be equipped with a suitably controlled ventilating system of sufficient capacity to maintain proper quantity of air under operating conditions without having to open windows except in extremely warm weather.

Static-type, non-closeable exhaust ventilation shall be installed in a low-pressure area of the roof.

Roof hatches designed to provide ventilation in all types of exterior weather conditions may be provided.

## **WHEELHOUSING**

The wheelhousing opening shall allow for easy tire removal and service.

The wheel housings shall be attached to floor sheets in such a manner so as to prevent any dust, water or fumes from entering the body. The wheel housings shall be constructed of at least 16-gauge steel.

The inside height of the wheelhousing above the floor line shall not exceed 12 inches.

The wheel housings shall provide clearance for installation and use of tire chains on single and dual (if so equipped) power-driving wheels.

No part of a raised wheelhousing shall extend into the emergency door opening.

## **WINDOWS**

Each full side window, other than emergency exits designated to comply with FMVSS 217, shall provide an unobstructed opening of at least nine inches but not more than 13 inches high and at least 22 inches wide, obtained by the lowering of the window. One side window on each side of the bus may be less than 22 inches wide.

Optional tinted and/or frost-free glazing may be installed in all doors, windows, and windshields consistent with federal, state, and local regulations.

## **WINDSHIELD WASHERS**

A windshield washer system shall be provided.

## **WINDSHIELD WIPERS**

A two-speed or variable speed windshield wiping system, with an intermittent **time delay** feature, shall be provided.

The wipers shall be operated by one or more air or electric motors of sufficient power to operate the wipers. If one motor is used, the wipers shall work in tandem to give full sweep of windshield.

## **WIRING**

All wiring shall conform to current SAE standards.

Circuits:

Wiring shall be arranged in circuits, as required, with each circuit protected by a fuse or circuit breaker. A system of color and number coding shall be used and an appropriate identifying diagram shall be provided to the end user, along with the wiring diagram provided by the chassis manufacturer. The wiring diagrams shall be specific to the bus model supplied and include any changes to wiring made by the body manufacturer. Chassis wiring diagrams shall be supplied to the end user. A system of color and number coding shall be used on buses. The following body interconnecting circuits shall be color coded as noted:

<u>FUNCTION</u>	<u>COLOR</u>
Left Rear Directional Lamp	Yellow
Right Rear Directional Lamp	Dark Green
Stoplamps	Red
Back-up Lamps	Blue
Taillamps	Brown
Ground	White
Ignition Feed, Primary Feed	Black

The color of cables shall correspond to SAE J 1128.

Wiring shall be arranged in at least six regular circuits as follows:

- Head, tail, stop (brake) and instrument panel lamps
- Clearance lamps and stepwell lamps that shall be actuated when service door is open
- Dome lamps
- Ignition and emergency door signal
- Turn signal lamps
- Alternately flashing signal lamps

Any of the above combination circuits may be subdivided into additional independent circuits.

Heaters and defrosters shall be wired on an independent circuit. Low profile heaters are not allowed within the clear floor area required to accommodate a wheelchair.

Whenever possible, all other electrical functions (such as sanders and electric-type windshield wipers) shall be provided with independent and properly protected circuits.

Each body circuit shall be coded by number or letter on a diagram of circuits and shall be attached to the body in a readily accessible location.

The entire electrical system of the body shall be designed for the same voltage as the chassis on which the body is mounted.

All wiring shall have an amperage capacity exceeding the design load by at least 25 percent. All wiring splices are to be done at an accessible location and noted as splices on wiring diagram.

A body wiring diagram of a size which can be easily read shall be furnished with each bus body or affixed in an area convenient to the electrical accessory control panel.

The body power wire shall be attached to a special terminal on the chassis.

All wires passing through metal openings shall be protected by a grommet.

Wires not enclosed within body shall be fastened securely at intervals of not more than 18 inches. All joints shall be soldered or joined by equally effective connectors, which shall be water-resistant and corrosion-resistant.

## STANDARDS FOR SPECIALLY EQUIPPED SCHOOL BUSES

### INTRODUCTION

Equipping buses to accommodate students with disabilities is dependent upon the needs of the passengers. While one bus may be fitted with a lift, another may have seat belts installed to secure child seats. Buses so equipped are not to be considered a separate class of school bus, but simply a regular school bus that is equipped for special accommodations.

The specifications in this section are intended to be supplementary to specifications in the chassis and body sections. In general, specially equipped buses shall meet all the requirements of the preceding sections plus those listed in this section. It is recognized by the entire industry that the field of special transportation is characterized by varied needs for individual cases and by a rapidly emerging technology for meeting those needs. A flexible, “common-sense” approach to the adoption and enforcement of specifications for these vehicles, therefore, is prudent.

As defined by Code of Federal Regulations (CFR) 49§571.3, “*Bus* means a motor vehicle with motive power, except a trailer, designed for carrying more than ten persons” (eleven or more including the driver). This definition also embraces the more specific category, *school bus*. Vehicles with ten or fewer passenger positions (including the driver) cannot be classified as buses. For this reason, the federal vehicle classification *multipurpose passenger vehicle* (CFR 49§571.3), or MPV, must be used by manufacturers for these vehicles in lieu of the classification *school bus*. This classification system does not preclude state or local agencies or these national specifications from requiring compliance of school bus-type MPVs with the more stringent federal standards for school buses. The following specifications address modifications as they pertain to school buses that, with standard seating arrangements prior to modifications as they pertain to school buses that, with standard seating arrangements prior to modification, would accommodate eleven or more including the driver. If by addition of a power lift, mobile seating device positions or other modifications, the capacity is reduced such that vehicles become MPVs, the intent of these standards is to require these vehicles to meet the same standards they would have had to meet prior to such modifications, and such MPVs are included in all references to school buses and requirements for school buses which follow.

### DEFINITION

A specially equipped school bus is any school bus that is designed, equipped, or modified to accommodate students with special needs.

### GENERAL REQUIREMENTS

School buses designed for transporting students with special transportation needs shall comply with Standards for Idaho School Buses and Operations and with Federal Motor Vehicle Safety Standards (FMVSS) applicable to their Gross Vehicle Weight Rating (GVWR) category.



Any school bus to be used for the transportation of children who are confined to a wheelchair or other mobile positioning device, or who require life-support equipment that prohibits use of the regular service entrance, shall be equipped with a power lift, unless a ramp is needed for unusual circumstances related to passenger needs.

## **AISLES**

All school buses equipped with a power lift shall provide a minimum 30-inch aisle leading from any wheelchair/mobility aid position to at least one emergency exit door. A wheelchair securement position shall never be located directly in front of a power lift door location. It is understood that, when provided, the lift service door is considered an emergency exit.

## **COMMUNICATIONS**

All school buses that are used to transport individuals with disabilities shall be equipped with a two-way electronic voice communication system other than CB radio.

## **GLAZING**

Tinted glazing may be installed in all doors, windows, and windshields consistent with federal, state, and local regulations.

## **IDENTIFICATION**

Buses with power lifts used for transporting individuals with disabilities shall display below the window line on the lift and rear doors the International Symbol of Accessibility. Such emblems shall be white on blue background, shall not exceed **12 inches by 12 inches** in size, and shall be of a high-intensity reflectorized material meeting Federal Highway Administration (FHWA) FP-85 Standards.

## **PASSENGER CAPACITY RATING**

In determining the passenger capacity of a school bus for purposes other than actual passenger load (e.g., vehicle classification or various billing/reimbursement models), any location in a school bus intended for securement of an occupied wheelchair/mobility aid during vehicle operations are regarded as four designated seating positions. Similarly, each lift area may be regarded as four designated seating positions.

## **POWER LIFTS AND RAMPS**

The power lift shall be located on the right side of the bus body when not extended. Exception: The lift may be located on the left side of the bus if, and only if, the bus is primarily used to deliver students to the left side of one way streets.

A ramp device may be used in lieu of a mechanical lift if the ramp meets all the requirements of the Americans with Disabilities Act (ADA) as found in 36 CFR §1192.23 - Vehicle ramp. (See Appendix D.)

A ramp device that does not meet the specifications of ADA but does meet the specifications delineated below may be installed and used, when, and only when, a power lift system is not adequate to load and unload students having special and unique needs. A readily accessible ramp may be installed for emergency exit use. If stowed in the passenger compartment, the ramp must be properly secured and placed away from general passenger contact. It must not obstruct or restrict any aisle or exit while in its stowed or deployed position.

- If a ramp is used, it shall be of sufficient strength and rigidity to support the special device, occupant, and attendant(s). It shall be equipped with a protective flange on each longitudinal side to keep the special device on the ramp.
- Floor of ramp shall be constructed of non-skid material.
- Ramp shall be equipped with handles and be of weight and design to permit one person to put the ramp in place and return it to its storage place.
- Ramps used for emergency evacuation purposes may be installed in raised floor buses by manufacturers. They shall not be used as a substitute for a lift when a lift is capable of servicing the need.

All vehicles covered by this specification shall provide a level-change mechanism or boarding device (e.g., lift or ramp) complying with the requirements under “Controls” or “Emergency Operation” of this section and sufficient clearances to permit a wheelchair or other mobility aid user to reach a securement location.

### **Vehicle Lift:**

Design loads: The design load of the lift shall be at least 600 pounds. Working parts, such as cables, pulleys and shafts, which can be expected to wear, and upon which the lift depends for support of the load, shall have a safety factor of at least six, based on the ultimate strength of the material. Nonworking parts, such as platform, frame and attachment hardware that would not be expected to wear, shall have a safety factor of at least three, based on the ultimate strength of the material.

Lift capacity: The lifting mechanism and platform shall be capable of lifting at least 800 pounds.

### **Controls:**

Requirements: Controls shall be provided that enable the operator to activate the lift mechanism from either inside or outside the bus. The controls may be interlocked with the vehicle brakes, transmission or door, or may provide other appropriate mechanisms or systems to ensure the vehicle cannot be moved when the lift is not stowed and so the lift cannot be deployed unless the

interlocks or systems are engaged. The lift shall deploy to all levels (i.e., ground, curb, and intermediate positions) normally encountered in the operating environment. Where provided, each control for deploying, lowering, raising and stowing the lift and lowering the roll-off barrier shall be of a momentary contact type requiring continuous manual pressure by the operator and shall not allow improper lift sequencing when the lift platform is occupied. The controls shall allow reversal of the lift operation sequence, such as raising or lowering a platform that is part way down, without allowing an occupied platform to fold or retract into the stowed position.

Exception: Where the lift is designed to deploy with its long dimension parallel to the vehicle axis which pivots into or out of the vehicle while occupied (i.e., “rotary lift”), the requirements of this paragraph prohibiting the lift from being stowed while occupied, shall not apply if the stowed position is within the passenger compartment and the lift is intended to be stowed while occupied.

### **Emergency Operation:**

The lift shall incorporate an emergency method of deploying, lowering to ground level with a lift occupant, and raising and stowing the empty lift if the power to the lift fails. No emergency method, manual or otherwise, shall be capable of being operated in a manner that could be hazardous to the lift occupant or to the operator when operated according to the manufacturer's instructions and shall not permit the platform to be stowed or folded when occupied, unless the lift is a rotary lift and is intended to be stowed while occupied. No manual emergency operation shall require more than two minutes to lower an occupied wheelchair to ground level.

### **Power or Equipment Failure:**

Platforms stowed in a vertical position, and deployed platforms when occupied, shall have provisions to prevent their deploying, falling, or folding any faster than 12 inches per second or their dropping of an occupant in the event of a single failure of any load carrying component.

### **Platform barriers:**

The lift platform shall be equipped with barriers to prevent any of the wheels of a wheelchair or mobility aid from rolling off the platform during its operation. A movable barrier or inherent design feature shall prevent a wheelchair or mobility aid from rolling off the edge closest to the vehicle until the platform is in its fully raised position. Each side of the lift platform that extends beyond the vehicle in its raised position shall have a barrier with a minimum height of one and ½ inches. Such barriers shall not interfere with maneuvering into or out of the aisle. The loading-edge barrier (outer barrier), which functions as a loading ramp when the lift is at ground level, shall be sufficient when raised or closed, or a supplementary system shall be provided, to prevent a power wheelchair or mobility aid from riding over or defeating it. The outer barrier of the lift shall automatically raise or close, or a supplementary system shall automatically engage, and remain raised, closed or engaged at all times that the platform is more than three inches above the roadway or sidewalk and the platform is occupied. Alternatively, a barrier or system may be raised, lowered, opened, closed, engaged or disengaged by the lift operator, provided an interlock

or inherent design feature prevents the lift from rising unless the barrier is raised or closed or the supplementary system is engaged.

**Platform Surface:**

The platform surface shall be free of any protrusions over ¼ inch high and shall be slip resistant. The platform shall have a minimum clear width of 28½ inches at the platform, a minimum clear width of 30 inches measured from two inches above the platform surface to 30 inches above the surface of the platform, and a minimum clear length of 48 inches measured from two inches above the surface of the platform to 30 inches above the surface of the platform. (See "Wheelchair or Mobility Aid Envelope" figure in Appendix D.)

**Platform Gaps:**

Any openings between the platform surface and the raised barrier shall not exceed 5/8 inch in width. When the platform is at vehicle floor height with the inner barrier (if applicable) down or retracted, gaps between the forward lift platform edge and the vehicle floor shall not exceed ½ inch horizontally and 5/8 inch vertically. Platforms on semi-automatic lifts may have a handhold not exceeding 1½ inch by 4½ inch located between the edge barriers.

**Platform Entrance Ramp:**

The outboard entrance ramp or loading-edge barrier used as a ramp and the transition plate from the inboard edge of the platform to the vehicle floor shall not exceed a slope of 1:8, measured on level ground, for a maximum rise of 3 inches, and the transition from roadway or sidewalk to ramp may be vertical without edge treatment up to ¼ inch. Thresholds between ¼ inch and ½ inch high shall be beveled with a slope no greater than 1:2.

**Platform Deflection:**

The lift platform (not including the entrance ramp) shall not deflect more than three degrees (exclusive of vehicle roll or pitch) in any direction between its unloaded position and its position when loaded with 600 pounds applied through a 26 inches by 26 inches test pallet at the centroid of the platform.

**Platform Movement:**

No part of the platform shall move at a rate exceeding six inches per second during lowering and lifting an occupant, and shall not exceed 12 inches per second during deploying or stowing. This requirement does not apply to the deployment or stowage cycles of lifts that are manually deployed or stowed. The maximum platform horizontal and vertical acceleration when occupied shall be 0.3 g.

**Boarding Direction:**

The lift shall permit both inboard and outboard facing of wheelchair and mobility aid users.

**Use by Standees:**

Lifts shall accommodate persons using walkers, crutches, canes or braces, or who otherwise have difficulty using steps. The platform may be marked to indicate a preferred standing position.

**Handrails:**

Platforms on lifts shall be equipped with handrails on two sides, which move in tandem with the lift, and which shall be graspable and provide support to standees throughout the entire lift operation. Handrails shall have a usable component at least eight inches long with the lowest portion a minimum 30 inches above the platform and the highest portion a maximum 38 inches above the platform. The handrails shall be capable of withstanding a force of 100 pounds concentrated at any point on the handrail without permanent deformation of the rail or its supporting structure. The handrail shall have a cross-sectional diameter between 1¼ inches and 1½ inches or shall provide an equivalent grasping surface, and have eased edges with corner radii of not less than 1/8 inch. Handrails shall be placed to provide a minimum 1½ inches knuckle clearance from the nearest adjacent surface. Handrails shall not interfere with wheelchair or mobility aid maneuverability when entering or leaving the vehicle.

**Circuit breaker:**

A resettable circuit breaker shall be installed between the power source and lift motor if electrical power is used. It shall be located as close to the power source as possible, but not within the passenger/driver compartment.

**Excessive pressure:**

Lift design shall prevent excessive pressure that could damage the lift system when the platform is fully lowered or raised, or that could jack the vehicle.

**Documentation:**

The following information shall be provided with each vehicle equipped with a lift:

- A phone number where information can be obtained about installation, repair, and parts. (Detailed written instructions and a parts list shall be available upon request.)
- Detailed instructions regarding use of the lift and readily visible when the lift door is open, including a diagram showing the proper placement and positioning of wheelchair/mobility aids on lift.

**Training Materials:**

The lift manufacturer shall make available training materials to ensure the proper use and maintenance of the lift. These may include instructional videos, classroom curriculum, system test results or other related materials.

### **Identification and Certification:**

Each lift shall be permanently and legibly marked or shall incorporate a non-removable label or tag that states that it conforms to all applicable requirements of the current National School Transportation Specifications and Procedures for school buses. In addition, the lift manufacturer or an authorized representative, upon request of the original titled purchaser, shall provide a notarized Certificate of Conformance, either original or photocopied, which states that the lift system meets all the applicable requirements of the current National School Transportation Specifications and Procedures.

### **REGULAR SERVICE ENTRANCE**

On power lift-equipped vehicles, the bottom step shall be the full width of the stepwell, excluding the thickness of the doors in open position.

A suitable device shall be provided to assist passengers during entry or egress. This device shall allow for easy grasping or holding and shall have no openings or pinch points that might entangle clothing, accessories or limbs.

### **RESTRAINING DEVICES**

On power lift-equipped vehicles, seat frames may be equipped with attachments or devices to which belts, restraining harnesses or other devices may be attached. Attachment framework or anchorage devices, if installed, shall conform to FMVSS 210.

Belt assemblies, if installed, shall conform to FMVSS 209.

Child restraint systems, which are used to facilitate the transportation of children who in other modes of transportation would be required to use a child, infant, or booster seat, shall conform to FMVSS No. 213.

### **SEATING ARRANGEMENTS**

Flexibility in seat spacing to accommodate special devices shall be permitted to meet passenger requirements. All seating shall be forward-facing.

### **SECUREMENT AND RESTRAINT SYSTEM FOR WHEELCHAIR/MOBILITY AID AND OCCUPANT**

For purposes of better understanding the various aspects and components of this section, the term *securement* or phrase *securement system* is used exclusively in reference to the device(s) that secures the wheelchair/mobility aid. The term *restraint* or phrase *restraint system* is used

exclusively in reference to the device(s) used to restrain the occupant of the wheelchair/mobility aid. The phrase *securement and restraint system* is used to refer to the total system that secures and restrains both the wheelchair/mobility aid and the occupant.

### **Securement and Restraint System – general:**

The Wheelchair/Mobility Aid Securement and Occupant Restraint System shall be designed, installed and operated to accommodate passengers in a forward-facing orientation within the bus and shall comply with all applicable requirements of FMVSS 222. Gurney-type devices shall be secured parallel to the side of the bus.

The securement and restraint system, including the system track, floor plates, pockets, or other anchorages shall be provided by the same manufacturer or shall be certified to be compatible by manufacturers of all equipment/systems used.

When a wheelchair/mobility aid securement device and an occupant restraint share a common anchorage, including occupant restraint designs that attach the occupant restraint to the securement device or the wheelchair/mobility aid, the anchorage shall be capable of withstanding the loads of both the securement device and the occupant restraint applied simultaneously, in accordance with FMVSS No. 222. (See Wheelchair/mobility Aid Securement System and Occupant Restraint System of this section.)

When a wheelchair/mobility aid securement device (webbing or strap assembly) is shared with an occupant restraint, the wheelchair/mobility aid securement device (webbing or strap assembly) shall be capable of withstanding a force twice the amount as specified in §4.4(a) of FMVSS No. 209. (See Wheelchair/mobility Aid Securement System and Occupant Restraint System of this section.)

The bus body floor and sidewall structures where the securement and restraint system anchorages are attached shall have equal or greater strength than the load requirements of the system(s) being installed.

The occupant restraint system shall be designed to be attached to the bus body either directly or in combination with the wheelchair/mobility aid securement system, by a method which prohibits the transfer of weight or force from the wheelchair/mobility aid to the occupant in the event of an impact.

When an occupied wheelchair/mobility aid is secured in accordance with the manufacturer's instructions, the securement and restraint system shall limit the movement of the occupied wheelchair/mobility aid to no more than 1/2 inch in any direction under normal driving conditions.

The securement and restraint system shall incorporate an identification scheme that will allow for the easy identification of the various components and their functions. It shall consist of one of the following, or combination thereof:

- The wheelchair/mobility aid securement (webbing or strap assemblies) and the occupant restraint belt assemblies shall be of contrasting color or color shade.
- The wheelchair/mobility aid securement device (webbing or strap assemblies) and occupant restraint belt assemblies shall be clearly marked to indicate the proper wheelchair orientation in the vehicle, and the name and location for each device or belt assembly, i.e., front, rear, lap belt, shoulder belt, etc.

All attachment or coupling devices designed to be connected or disconnected frequently shall be accessible and operable without the use of tools or other mechanical assistance.

All securement and restraint system hardware and components shall be free of sharp or jagged areas and shall be of a non-corrosive material or treated to resist corrosion in accordance with §4.3(a) of FMVSS 209.

The securement and restraint system shall be located and installed such that when an occupied wheelchair/mobility aid is secured, it does not block access to the lift door.

A device for storage of the securement and restraint system shall be provided. When the system is not in use, the storage device shall allow for clean storage of the system, shall keep the system securely contained within the passenger compartment, shall provide reasonable protection from vandalism and shall enable the system to be readily accessed for use.

The entire securement and restraint system, including the storage device, shall meet the flammability standards established in FMVSS No. 302.

Each securement device (webbing or strap assembly) and restraint belt assembly shall be permanently and legibly marked or shall incorporate a non-removable label or tag that states that it conforms to all applicable FMVSS requirements, as well as the current National School Transportation Specification and Procedures. In addition, the system manufacturer, or an authorized representative, upon request by the original titled purchaser, shall provide a notarized Certificate of Conformance, either original or photocopied, which states that the wheelchair/mobility aid securement and occupants' restraint system meets all of the requirements as specified in FMVSS No. 222 and the current National School Transportation Specifications and Procedures.

The following information shall be provided with each vehicle equipped with a securement and restraint system:

- A phone number where information can be obtained about installation, repair, and parts. (Detailed written instructions and a parts list shall be available upon request.)
- Detailed instructions regarding use, including a diagram showing the proper placement of the wheelchair/mobility aids and positioning of securement devices and occupant restraints, including correct belt angles.



The system manufacturer shall make available training materials to ensure the proper use and maintenance of the wheelchair/mobility aid securement and occupant restraint system. These may include instructional videos, classroom curriculum, system test results or other related materials.

### **Wheelchair/mobility Aid Securement System:**

Each location for the securement of a wheelchair/mobility aid shall have a minimum of four anchorage points. A minimum of two anchorage points shall be located in front of the wheelchair/mobility aid and a minimum of two anchorage points shall be located in the rear. The securement anchorages shall be attached to the floor of the vehicle and shall not interfere with passenger movement or present any hazardous condition.

Each securement system location shall have a minimum clear floor area of 30 inches by 48 inches. Additional floor area may be required for some applications. Low profile heaters are not allowed within the clear floor area required to accommodate a wheelchair. Consultation between the user and the manufacturer is recommended to ensure the adequate area is provided.

The securement system shall secure common wheelchair/mobility aids and shall be able to be attached easily by a person having average dexterity and who is familiar with the system and wheelchair/mobility aid.

As installed, each securement anchorage shall be capable of withstanding a minimum force of 3,000 pounds when applied as specified in FMVSS No. 222. When more than one securement device shares a common anchorage, the anchorage shall be capable of withstanding the force indicated above, multiplied by the number of securement devices sharing that anchorage.

Each securement device, if incorporating webbing or a strap assembly, shall comply with the requirements for Type 1 lap belt systems, in accordance with §4.2, §4.3, and §4.4(a) of FMVSS No. 209.

The securement system shall secure the wheelchair/mobility aid in such a manner that the attachments or coupling hardware will not become detached when any wheelchair/mobility aid component deforms, when one or more tires deflate, and without intentional operation of a release mechanism (e.g., a spring clip on a securement hook).

Each securement device (webbing or strap assembly) shall be capable of withstanding a minimum force of 2,500 pounds when tested in accordance with FMVSS No. 209.

Each securement device (webbing or strap assembly) shall provide a means of adjustment, per the manufacturer's design, to remove slack from the device or assembly.

### **Occupant Restraint System:**

A Type 2 lap/shoulder belt restraint system that meets all applicable requirements of FMVSS Nos. 209 and 210 shall provide for restraint of the occupant.

The occupant restraint system shall be made of materials that do not stain, soil or tear an occupant's clothing, and shall be resistant to water damage and fraying.

Each restraint system location shall have not less than one anchorage of manufacturer's design for the upper end of the upper torso restraint. The anchorage for each occupant's upper torso restraint shall be capable of withstanding a minimum force of 1,500 pounds when applied as specified in FMVSS No. 222.

Each wheelchair/mobility aid location shall have not less than two floor anchorages for the occupant pelvic restraint and the connected upper torso restraint.

- Each floor anchorage shall be capable of withstanding a minimum force of 3,000 pounds when applied as specified in FMVSS No. 222.
- When more than one occupant restraint share a common anchorage, the anchorage shall be capable of withstanding a minimum force of 3,000 pounds multiplied by the number of occupant restraints sharing the common anchorage in accordance with FMVSS No. 222.

Each floor and wall anchorage that secures the occupant restraint to the vehicle which is not permanently attached, shall be of a "positive latch" design, and shall not allow for any accidental disconnection.

### **Dynamic Testing:**

The wheelchair/mobility aid securement and occupant restraint system shall be subjected to, and successfully pass, a dynamic sled test at a minimum impact speed/deceleration of 30 mph/20g's.

The dynamic test shall be performed by experienced personnel using an impact simulator with proven ability to provide reliable, accurate, and test results that can be replicated.

The dynamic test shall be performed in accordance with the procedures set forth in Appendix A of SAE J2249, "Test for Frontal Impact Crash Worthiness."

The wheelchair/mobility aid used for testing purposes shall be a rigid, reusable surrogate wheelchair that complies with the requirements of Appendix D of SAE J2249, "Specification for Surrogate Wheelchair."

The dynamic test shall be performed using system assemblies, components and attaching hardware that are identical to the final installation in type, configuration and positioning. The body structure at the anchorage points may be simulated for the purpose of the sled test.

When tested, the wheelchair/mobility aid securement and occupant restraint system shall pass the criteria specified in Section 6.2 of SAE J2249, "Performance Requirements of Frontal Sled Impact Test." Following is an abridged summary of the criteria presented in Appendix D.

- Retain the test dummy in the test wheelchair and on the test sled with the test wheelchair in an upright position.
- Do not show any fragmentation or complete separation of any load carrying part.
- Do not allow the horizontal excursions of the test dummy and the test wheelchair to exceed specified limits.
- Prevent the test wheelchair from imposing forward loads on the test dummy.
- Allow removal of the test dummy and the test wheelchair subsequent to the test without the use of tools.

## **SPECIAL LIGHT**

Doorways in which lifts are installed shall have for use during lift operation a special light providing a minimum of two foot-candles of illumination measured on the floor of the bus immediately adjacent to the lift and on the lift when deployed at **ground level**. **If necessary two lights, an interior and an exterior, shall be provided to meet this requirement.** These lights shall be separate from the vehicle dome lights and wired to be actuated whenever the lift door is open.

## **SPECIAL SERVICE ENTRANCE**

Power lift-equipped bodies shall have a special service entrance to accommodate the power lift.

Exception: If the lift is designed to operate within the regular service entrance, and is capable of stowing such that the regular service entrance is not blocked in any way, and that persons entering or exiting the bus are not impeded in any way, a special service entrance shall not be required.

The special service entrance and door shall be located on the right side of the bus and shall be designed so as not to obstruct the regular service entrance.

Exception: A special service entrance and door may be located on the left side of the bus if, and only if, the bus is used primarily to deliver students to the left side of one-way streets and its use is limited to that function.

The opening may extend below the floor through the bottom of the body skirt. If such an opening is used, reinforcements shall be installed at the front and rear of the floor opening to support the floor and give the same strength as other floor openings.

A drip molding shall be installed above the opening to effectively divert water from entrance.

Door posts and headers at the entrance shall be reinforced sufficiently to provide support and strength equivalent to the areas of the side of the bus not used for the special service entrance.

## **SPECIAL SERVICE ENTRANCE DOORS**

A single door or double doors may be used for the special service entrance.

A single door shall be hinged to the forward side of the entrance unless doing so would obstruct the regular service entrance. If, due to the above condition, the door is hinged to the rearward side of the doorway, the door shall utilize a safety mechanism that will prevent the door from swinging open should the primary door latch fail. If double doors are used, the system shall be designed to prevent the door(s) from being blown open by the wind resistance created by the forward motion of the bus, and/or shall incorporate a safety mechanism to provide secondary protection should the primary latching mechanism(s) fail.

All doors shall have positive fastening devices to hold doors in the open position.

All doors shall be weather sealed.

When manually-operated dual doors are provided, the rear door shall have at least a one-point fastening device to the header. The forward-mounted door shall have at least three one-point fastening devices. One shall be to the header, one to the floor line of the body, and the other shall be into the rear door. The door and hinge mechanism shall be of a strength that is greater than or equivalent to the emergency exit door.

Door materials, panels and structural strength shall be equivalent to the conventional service and emergency doors. Color, rub rail extensions, lettering and other exterior features shall match adjacent sections of the body.

Each door shall have windows set in rubber that are visually similar in size and location to adjacent non-door windows. Glazing shall be of same type and tinting (if applicable) as standard fixed glass in other body locations.

Door(s) shall be equipped with a device that will actuate an audible or flashing signal located in the driver's compartment when door(s) is not securely closed and the ignition is in the "on" position.

A switch shall be installed so that the lifting mechanism will not operate when the lift platform door(s) is closed.

Special service entrance doors shall be equipped with padding at the top edge of the door opening. Padding shall be at least three inches wide and one inch thick and shall extend the full width of the door opening.

## **SUPPORT EQUIPMENT AND ACCESSORIES**

Each bus which is set up to accommodate wheelchair/mobility aids or other assistive or restraint devices that utilize belts shall contain at least one belt cutter properly secured in a location within

reach of the driver while belted into his/her driver's seat. The belt cutter shall be durable and designed to eliminate the possibility of the operator or others being cut during use.

Special equipment or supplies that are used on the bus for mobility assistance, health support or safety purposes shall meet any local, federal or engineering standards that may apply, including proper identification.

Equipment that may be used for these purposes includes, but is not limited to:

- Wheelchairs and other mobile seating devices. (See section on Securement and Restraint System for Wheelchair/Mobility Aid and Occupant.)
- Crutches, walkers, canes and other ambulating devices.
- Medical support equipment: This may include respiratory devices such as oxygen bottles (which should be no larger than 22 cubic feet for liquid oxygen and 38 cubic feet for compressed gas) or ventilators. Tanks and valves should be located and positioned to protect them from direct sunlight, bus heater vents or other heat sources. Other equipment may include intravenous and fluid drainage apparatus.

All portable equipment and special accessory items, including the equipment listed above, shall be secured at the mounting location to withstand a pulling force of five times the weight of the item or shall be retained in an enclosed, latched compartment. The compartment shall be capable of withstanding forces applied to its interior equal to five times the weight of its contents without failure to the box's integrity and securement to the bus. Exception: If these standards provide specific requirements for securement of a particular type of equipment, the specific standard shall prevail (e.g., wheelchairs).

## **TECHNOLOGY AND EQUIPMENT, NEW**

It is the intent of these standards to accommodate new technologies and equipment that will better facilitate the transportation of students with special needs. When a new technology, piece of equipment or component is desired to be applied to the school bus and it meets the following criteria, it may be acceptable.

- The technology, equipment or component shall not compromise the effectiveness or integrity of any major safety system, unless it completely replaces the system. (Examples of safety systems include, but are not limited to, compartmentalization, the eight-light warning system, emergency exits, and the yellow color scheme.)
- The technology, equipment or component shall not diminish the safe environment of the interior of the bus.
- The technology, equipment or component shall not create additional risk to students who are boarding or exiting the bus or are in or near the school bus loading zone.

- The technology, equipment or component shall not create undue additional activity and/or responsibility for the driver.
- The technology, equipment or component shall generally increase efficiency and/or safety of the bus, or generally provide for a safer or more pleasant experience for the occupants and pedestrians in the vicinity of the bus or generally assist the driver or make his/her many tasks easier to perform.

## **STANDARDS FOR ALTERNATIVE FUELS**

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### **INTRODUCTION**

This section is designed to be used as an overview of the alternative fuels being utilized for school transportation. It is not designed to replace current applicable federal, state, manufacturing or safety standards that may exceed requirements within this section. There may be advancements in engineering and improvements in equipment fabrication methods and operating practices that differ from those specifically called for in this section. Such deviations or improvements may provide safety and may meet the intent of, and be compatible with, this section. Entities wishing to purchase alternative fuel school buses should use this section only as a starting point. More detailed specifications, including specific design and performance criteria and safety standards, should be researched by prospective purchasers of alternative-fuel school buses.

### **GENERAL REQUIREMENTS**

Alternative fuel school buses shall meet the following requirements:

- Chassis shall meet all standards previously mentioned in BUS CHASSIS STANDARDS.
- Chassis shall meet all applicable Federal Motor Vehicle Safety Standards (FMVSS).
- The fuel system integrity shall meet the specified leakage performance standards when impacted by a moving contoured barrier in accordance with test conditions specified in FMVSS No. 301 or FMVSS No. 303, as applicable.
- Original equipment manufacturers (OEMs) and conversion systems using compressed natural gas (CNG) shall comply with National Fire Protection Association (NFPA) Specification 52 A, "Compressed Natural Gas Vehicular Fuel Systems," in effect at the time of installation. Fuel systems using liquefied petroleum gas (LPG) shall comply with the NFPA Specification 58 A, "Liquefied Petroleum Gases Engine Fuel Systems," in effect at the time of installation.
- All alternative fuel buses shall be capable of traveling not less than 200 miles with a full load, except those powered by electricity shall be capable of traveling not less than 80 miles.
- Natural gas-powered buses shall be equipped with an interior/exterior gas detection system. All natural gas-powered buses shall be equipped with an automatic or manual fire detection and suppression system.
- All materials and assemblies used to transfer or store alternative fuels shall be installed outside the passenger/driver compartment.

- All Types C and D buses using alternative fuels shall meet the same base requirements of BUS CHASSIS STANDARDS for Power and Grade Ability, i.e., at least one published net horsepower per each 185 pounds of Gross Vehicle Weight Rating (GVWR).
- The total weight shall not exceed the GVWR when loaded to rated capacity.
- The manufacturer supplying the alternative fuel equipment must provide the owner and operator with adequate training and certification in fueling procedures, scheduled maintenance, troubleshooting and repair of alternative fuel equipment.
- All fueling equipment shall be designed specifically for fueling motor vehicles and shall be certified by the manufacturer as meeting all applicable federal, state and industry standards.
- All on-board fuel supply containers shall meet all appropriate requirements of the American Society for Mechanical Engineering (ASME) code, DOT regulations or applicable FMVSSs and NFPA Standards.
- All fuel supply containers shall be securely mounted to withstand a static force of eight times their weight in any direction.
- All safety devices that may discharge to the atmosphere shall be vented to the outside of the vehicle. The discharge line from the safety relief valve on all school buses shall be located in a manner appropriate to the characteristics of the alternative fuel. Discharge lines shall not pass through the passenger compartment.
- A positive quick-acting ( $\frac{1}{4}$  turn) shut-off control valve shall be installed in the gaseous fuel supply line, as close as possible to the fuel supply containers. The valve controls shall be placed in a location easily operable from the exterior of the vehicle. The location of the valve control shall be clearly marked on the exterior surface of the bus.
- An electrical grounding system shall be required for grounding of the fuel system during maintenance-related venting.

## **CHARACTERISTICS OF ALTERNATIVE FUELS**

For the purpose of this section, alternative fuels refer to the specific fuels listed below. A brief description of each fuel and the advantages and disadvantages of each fuel are shown. (see Appendix C, Alternative Fuels Comparison Chart)

**Note:** Two other more exotic fuels are being examined, hydrogen and solar power. These two energy sources are in their infancy as alternative fuels for motor vehicles and are not covered within the scope of this section.

### **Liquid Alternative Fuels:**



**Methanol:** Methanol, a liquid at normal ambient temperatures, is colorless, and is made primarily from natural gas or coal. Extensive experiments have been conducted with auto and truck engines powered by methanol. There are a number of urban transit bus fleets currently using methanol. California has experience with methanol as an alternative fuel for school buses through their School Bus Demonstration Project. The findings clearly determined methanol fuel to be costly to operate and unreliable.

**Advantages:**

- The principal advantage to methanol is that the emissions produced are quite low in particulates and NOx.
- Methanol mixes with gasoline and can be used as M85, which is 15 percent gasoline and 85 percent methanol with flexible-fuel vehicles running on a blend of the two fuels.
- Methanol has a high octane rating which assists gasoline (spark ignition) engine performance.
- Methanol is biodegradable and readily assimilates with water.
- Methanol burns smokeless.
- Methanol is a domestically produced energy source.

**Disadvantages:**

- Methanol is corrosive, particularly to aluminum; engines and fuel systems specially designed to handle it use different materials, such as stainless steel.
- Methanol has less than half the power per equivalent gallon (BTU value) as that of diesel fuel. For an equivalent range, this requires storage tanks twice the size of diesel tanks.
- Methanol is quite toxic. Direct exposure to the human body has the potential of causing blindness and kidney failure. Since it is tasteless and colorless, it cannot be easily detected should it get into a water supply.
- Methanol combustion generates high amounts of formaldehyde, a potential cancer causing substance. This can be offset with exhaust after-treatment, such as special catalytic converters.
- In its pure state, methanol burns with a colorless flame, so a fire is hard to see. It is less volatile than gasoline but has a relatively low flash point of 54 degrees Fahrenheit.
- The distribution system and infrastructure for methanol fueling are considerably less widespread than for gasoline and diesel.

**Ethanol:** Ethanol is a distilled agricultural alcohol product that is a liquid and is colorless at normal ambient temperatures. Corn is the current primary grain source. It has many of the same characteristics as methanol. Currently, ethanol is used primarily currently in a mixture with gasoline, usually no more than 10% ethanol.

**Advantages:**

- Ethanol emissions are quite low in particulates and NO<sub>x</sub>.
- Like methanol, ethanol readily mixes with gasoline.
- Ethanol is biodegradable and readily assimilates with water.
- Ethanol is less corrosive and less toxic than methanol.
- Ethanol is a domestically produced energy source.

**Disadvantages:**

- The production process is extensive and the steps involved (i.e., planting, fertilizing, harvesting, shipping and processing) consume nearly as much energy as is created by the fuel.
- The energy output of ethanol, though higher than methanol, is still only about half that of diesel fuel, thus the range of ethanol-powered vehicles is limited for a given fuel storage capacity.
- Ethanol emissions have some visible smoke.
- Ethanol produces formaldehyde; however, this can be offset with an exhaust after-treatment.
- The distribution system and infrastructure for ethanol fueling are considerably less widespread than for gasoline and diesel.

**Clean Diesel:** Clean diesel was one of the alternative fuels approved in the Clean Air Act Amendments of 1990. The first step to be undertaken was further refining to reduce sulfur content and hence the significant particulate emissions caused by the sulfur. Significant advancement in this process has resulted in the development of ultra-low sulfur content diesel fuel. Refinery techniques can now produce diesel fuel with a sulfur content below 15 parts per million (PPM). The availability of this fuel supports the installation of an advanced exhaust after-treatment device in the form of a continuously regenerating trap (CRT). This CRT technology reduces the exhaust particulate content by approximately 90 percent from currently mandated levels (to .005 grams/hp-hr) and the hydrocarbons to an unmeasurable level (to essentially zero). Further steps are being developed to add cetane boosters, which increase efficient combustion.

**Advantages:**

- The additional processing costs are small, so clean and ultra-low sulfur diesels are cost-effective relative to other alternative fuels.
- All existing diesel engines currently in service can use clean or ultra-low sulfur diesel without modification.
- The present systems for distribution of diesel fuel are unchanged and are fully usable with clean diesel.
- Clean and ultra-low sulfur diesel retains the low level of diesel fuel volatility. This makes it safer than many of the other alternatives.
- Clean and ultra-low sulfur diesel has a higher BTU value per gallon or equivalent gallon than any other alternative fuel, and thus provides more engine efficiency, as well as more vehicle range.
- Ultra-low sulfur diesel offers significant reductions in emissions.

**Disadvantages:**

- Clean diesel is still relatively high in particulates and NOx.
- Clean and ultra-low sulfur diesel are fossil fuels and, as such, still leaves the country dependent on foreign sources.
- When operating under cold conditions, starting is a problem, as with all diesel fuels.
- Ultra-low sulfur diesel is not readily available in most areas of the country.

**Reformulated Gasoline:** Reformulated gasoline is a specially blended fuel with the following properties: (1) lower vapor pressure that reduces evaporation during operation and refueling, and (2) more efficient combustion through the addition of high-octane oxygenates. Reformulated gasoline aromatic levels have been lowered, which provides less in the way of hydrocarbon tail pipe emissions.

**Advantages:**

- Reformulated gasoline is compatible with all existing gasoline engines.
- The existing fuel-delivery infrastructure is unchanged by this change in fuel properties.
- Reformulated gasoline is a cost-effective alternative in spite of some additional refining costs.

**Disadvantages:**

- Currently there is insufficient oxygenate production and storage (as well as transportation) to provide the oxygenate when and where it is needed.
- Like regular gasoline, reformulated gasoline has a lower caloric (BTU) value than diesel and, thus, provides less engine efficiency than diesel and less range for a given fuel capacity.
- Reformulated gasoline is a fossil fuel and, as such, still leaves the country dependent on foreign sources.
- Present technology and federal emissions and energy standards will allow reformulated gasoline to be viable to the year 2000. Significant improvements must take place if reformulated gasoline is to be used after that time, assuming present planned regulations remain in place.

**Gaseous Alternative Fuels:**

**Natural Gas:** Natural gas is primarily methane as it comes from the well, and it burns quite cleanly in its unprocessed state. Natural gas has a higher ignition point (temperature) and a narrower fuel/oxygen mixture combustion range than other fuels. Energy is consumed in processing natural gas to achieve sufficient vehicle storage (i.e., compression or cryogenic processes). (See Compressed Natural Gas and Liquid Natural Gas below.)

**Compressed Natural Gas (CNG):** Compressed natural gas, or CNG, consists primarily of mixtures of hydrocarbon gases and vapors, consisting principally of methane (CH<sub>4</sub>) in gaseous form, which is compressed for use as a vehicular fuel.

**Advantages:**

- Natural gas is readily available as a domestic energy source, is inexpensive and has generally developed lower emissions than most other alternative fuels.
- CNG already is in use as a viable alternative for light-duty vehicles. The American Gas Association reports over 700,000 natural gas-powered vehicles in operation in 38 countries.
- Cleaner burning minimizes carbon buildup, thus increasing oil change intervals and reducing maintenance.

**Disadvantages:**

- The pressure of CNG requires heavy storage tanks. The tanks are large even for short-range use. Those two factors reduce cargo capacity. Maintaining reasonable cargo capacity restricts tank size and limits range. Lower caloric (BTU) value per equivalent gallon than diesel also limits engine efficiency and vehicle range.

- The high pressure that the CNG fuel storage system must endure requires careful design and location on the vehicle, protection from damage, plus periodic maintenance and upkeep. Periodic tank testing for structural safety is required, and tank replacement during the life cycle of the vehicle may be necessary.
- Refueling time is dependent on the type of fueling system used and can be quite lengthy. There are two methods: (1) “slow-fill,” which takes from five to eight hours and is typically called “overnight” or “time-fill” refueling, and (2) “fast-fill,” which takes about five to 10 minutes and requires high-volume compression and special filling apparatus.
- Natural gas compression and refueling equipment is expensive and must be maintained. Fast fill capability requires an additional “cascade” of high volume storage cylinders, which adds considerable expense to the fueling station.
- There are composition variations in natural gas and the percentage of methane content from one area to another. Additional processing is required to get uniform natural gas available in all areas.
- Natural gas has poor lubricative properties.

**Liquid natural gas (LNG):** Liquid natural gas utilizes the same natural gas source (primarily methane) as CNG, but requires purification of the gas and cooling and storage below -260 degrees Fahrenheit to liquefy the natural gas. Converting natural gas to liquid form provides storage of a much greater amount on the vehicle than can be achieved in the gaseous state.

#### **Advantages:**

- Liquid natural gas has all of the combustion advantages of compressed natural gas, is readily available, clean burning and generally produces lower emissions than alternatives other than CNG.
- An engine will operate just as easily on LNG as it does on CNG. Although one is stored by compression and the other by cryogenics, when either gets to the point of combustion, it is natural gas.
- The range of an LNG is greater than that of CNG vehicle due to the fuel density.
- The LNG fuel system pressure is less than 100 psig as compared to 3000 psig in a CNG system.
- LNG provides almost pure methane with known performance characteristics.

#### **Disadvantages:**

- Maintaining the super-cool temperature requires large, heavy, highly insulated tanks which forces a compromise between vehicle range and cargo carried.
- Equipment to super-cool and liquefy gas is expensive to purchase, operate, and maintain.
- Liquid natural gas can be kept in the insulated storage tank for seven to ten days. After that, it must be bled off to maintain the cold temperature required to hold the gas in liquid form.
- The bleeding-off process releases hydrocarbons which, in turn, requires treatment to avoid direct release into the atmosphere.
- Natural gas has poor lubricative properties.

**Propane (also known as LIQUEFIED PETROLEUM GAS or LPG):** Propane, or LPG, is sometimes available directly from wells, but is normally produced as a by-product of the gasoline refining process. It has been used for a number of years in light-duty commercial vehicles in urban areas around the world.

#### **Advantages:**

- Propane burns relatively clean. It emits less NO<sub>x</sub> and contains less particulate matter than diesel, and emits less carbon monoxide and fewer hydrocarbons than gasoline.
- The cleaner burning minimizes carbon buildup in the engine, resulting in less maintenance.
- Propane starts better in cold weather than either diesel or gasoline.
- The infrastructure for distribution and storage of propane is relatively widespread.

#### **Disadvantages:**

- As with CNG, propane requires large and heavy fuel tanks to achieve reasonable driving range, due to reduced engine efficiency per equivalent gallon.
- Propane requires the use of relatively low compression ratios, resulting in lower fuel economy.
- Propane vapors, like gasoline, are heavier than air and are volatile. These explosive mixtures settle in service pits or other spots, therefore, indoor storage can be a safety concern.
- As a by-product, propane is dependent on the gasoline process which limits supply. Further, it does little toward the reduction of dependency on foreign oil.

- Propane has poor lubricative properties.

**Electric Power:** The use of electricity as a power source for school buses is an emerging technology that is under considerable research due to the potential for reduced overall emissions. Research is centering on ways to increase the capacity and reduce the weight of batteries, as well as improving the motors used to power the vehicles and the associated electronics. Recharging technology is also developing rapidly. Most of these efforts have the goals of improving the range and performance of electric vehicles, reducing their cost and addressing operational concerns, such as recharging.

#### **Advantages:**

- Electric-powered vehicles produce no tail pipe emissions.
- The electricity distribution system is currently available since power lines are already in place.
- Electricity can be, and often is, produced from renewable, domestic energy sources.
- Electric-powered vehicles are extremely quiet, due to the lack of internal combustion engines.
- Electric school buses can be produced as hybrid vehicles, which would have a small internal combustion engine to recharge batteries, or to supply heating systems or various other chassis accessories.
- The cost per mile to operate electric-powered vehicles is low. In other words, power source maintenance is practically nil, compared to internal combustion engines.

#### **Disadvantages:**

- Electric-powered vehicles have low range due to battery weight and limited electrical storage capacity of current batteries
- Electric-powered vehicles may not eliminate overall emissions and/or foreign oil dependency if electricity to charge vehicle batteries is produced from coal or oil.
- Current cost of electric power systems for vehicles, including batteries, is extremely high.
- Battery disposal is an environmental concern.
- Significant weight of current batteries limits passenger carrying capacity.

## **SCHOOL BUS WITHDRAWAL FROM SERVICE STANDARDS**

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### **INTRODUCTION**

All school buses shall at all times conform to the standards of construction prescribed therefor by the State Board of Education. Before any newly acquired school bus is used for transporting pupils it shall be inspected by a duly authorized representative of the State Department of Education, and if, upon inspection, it conforms to prescribed standards of construction, or such other standards prescribed by law or regulation, it may be used for transporting pupils; otherwise, no such school bus shall be used for that purpose. The board of trustees of each school district shall provide for an annual inspection of all school buses by district personnel or upon contract at intervals of not more than twelve (12) months. The district, over the signature of the superintendent, shall file with the State Department of Education its report of inspection of the school buses operated by the authority of the school district. At intervals of not more than sixty (60) days during each school year the board of trustees shall cause inspection to be made of all school buses operating under the authority of the board. In addition, the State Department of Education shall conduct random, spot inspections of school buses throughout the school year. Whenever any school bus is found, upon inspection, to be deficient in any of the prescribed standards, or is found in any way to be unsafe or unfit for the transportation of pupils, such vehicle shall be withdrawn from service and shall not be returned to service until the district certifies the necessary repairs have been made. (33-1506, Idaho Code)

The State Department of Education will develop and maintain an Out-of-Service Matrix that will be presented to the State Board of Education for approval as necessary. These standards shall be intended to ensure that all Idaho school buses are maintained in a safe manner. When inspection of a bus reveals a maintenance condition that is below an out-of-service standard it shall be the duty of the technician performing the inspection to remove the vehicle from service until the discrepancy has been corrected. These standards shall apply to both new and used buses and shall be the criteria used whenever an Idaho school bus is inspected. These standards are to be used whenever a 60-day, Annual or New School Bus Inspection is being performed by state inspectors or district, contractor, or outside contracted maintenance personnel.



## **STANDARDS FOR PUPIL TRANSPORTATION OPERATIONS**

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### **ADMINISTRATION**

In compliance with 33-1511, Idaho Code, the State Department of Education shall provide the following:

- Leadership in the development of a comprehensive pupil transportation program for statewide application.
- A state supervisor of pupil transportation with the staff and other resources necessary for optimal job performance.
- A comprehensive school bus operator training program.
- Visits to local districts to audit, inspect and evaluate transportation systems and provide direction as necessary.
- Managing the state's pupil transportation program to include planning, budgeting, and forecasting requirements for the operation.
- Collecting and analyzing statistical and financial data.
- Developing, preparing and organizing manuals, handbooks and written training programs for pupil transportation personnel.
- Providing consulting services and assistance to local districts as necessary.

### **WRITTEN POLICIES**

In compliance with 33-1501 through 33-1512, Idaho Code, the local board of trustees will establish and adopt a set of written policies governing the pupil transportation system, including policies for disabled students. Contracting school districts shall ensure compliance to written policies by pupil transportation contractors. The district's written policies shall include:

- Pupil transportation operations, including participation in training programs for all transportation personnel.
- The evaluation of school bus routes and the periodic evaluation of pupil transportation personnel. The transportation supervisor or the district's school bus driver trainer shall evaluate a minimum of once per year each route and each driver for the purpose of assessing the safety of routes and bus stops and driver performance (National School Transportation Specifications & Procedures, Identification and Evaluation of School Bus Route and Hazard Marking Systems). The time schedule for pickup and delivery of children shall be followed as accurately as possible. Documentation of the driver and

route evaluation shall be retained in the driver's personnel file. The State Department of Education shall develop and maintain model evaluation procedures and forms.

- The investigation and reporting of accidents and other transportation problems. Drivers shall report all school bus crashes to local school authorities and the appropriate law enforcement agency in accordance with Title 49, Chapter 13 of Idaho Code. Subsequent to the accident or incident, a Uniform School Bus Accident/Injury or appropriate Incident Report Form shall be completed by the driver or transportation supervisor and submitted to the State Department of Education within fifteen (15) days.
- Providing supervision of loading and unloading areas at or near schools during unloading and loading of school buses. Providing adequate number of supervisors for the size of the loading area and number of students present and providing close, continuous and interactive supervision whenever students and/or buses are present in the loading area.
- Providing emergency training and periodic evacuation drills for students (Highway Safety Program Guideline 17). Documentation of all evacuation drills shall be maintained for a period of three years by the school district in either a batch file or in the driver's individual file.
- Promoting public understanding of, and support for, the school transportation program in general.

The local Board of Trustees and administrators may find the following resources helpful when developing local pupil transportation policy:

- The most recent National Conference on School Transportation publication; i.e., *National School Transportation Specifications and Procedures* (Operations Section).
- Pupil Transportation Safety *Guideline 17*, U.S. Department of Transportation, National Highway Traffic Safety Administration.
- *Individuals with Disabilities Education Act* (IDEA).
- *Americans with Disabilities Act* (ADA).
- *Family Educational Rights and Privacy Act* (FERPA).
- *Rehabilitation Act*, Section 504.
- 33-205, 33-512, 33-1006, 33-1501 through 33-1512, Idaho Code.
- Applicable Federal and State case law.
- *Idaho Special Education Manual*, State Department of Education.
- *Idaho Pupil Transportation Manual*, State Department of Education.
- *Idaho School Bus Driver Training Curriculum*, State Department of Education.
- *Idaho School Bus Driver Behind-the-Wheel Training Manual*, State Department of Education.
- *Standards for Idaho School Buses and Operations*, State Board of Education.

## **PERSONNEL QUALIFICATIONS AND TRAINING**

In compliance with Federal Motor Carrier Safety Administration Regulations (Part 383) and 33-130, 33-1508 and 33-1509, Idaho Code, the local board of trustees/administration will establish and adopt a set of written prerequisite qualifications and job descriptions governing pupil transportation personnel, which shall include:

- Completion of an application form, which includes a personal and occupational history.
- A satisfactory driving record as revealed through pre-employment and annual checks with the driver license division.
- A satisfactory work history as verified through professional references.
- The ability to manage resources, students and personnel necessary to achieve a desired objective.

### **School Bus Driver Training**

All new school bus drivers will complete a prior-approved school bus driver training program, which shall include documented knowledge and skill tests, as well as ten (10) inclusive hours of behind-the-wheel and/or route observation, before being allowed to drive a school bus loaded with students. As a support to school district personnel, the State Department of Education shall develop and maintain model classroom and behind-the-wheel training curricula incorporating nationally recognized driver training methods and resources. (Sections 33-1508; 33-1509; 33-1511, Idaho Code)

All experienced school bus drivers will complete at least ten (10) hours refresher school bus driver training each fiscal school year. At least three (3) hours of pre-service training shall be provided before school begins in the fall. In addition, at least three (3) in-service training sessions shall be provided during the school year using at a minimum thirty (30) minute, topic specific and documented, training blocks.

School districts shall request documentation of all previous school bus driver training and driving experience, in accordance with Federal Motor Carrier Safety Administration CDL licensing requirements. Documentation of previous training, similar to State Board of Education training requirements, may be used to comply with new school bus driver training hours. Regardless of any previous out-of-district training, all newly hired school bus drivers shall have sufficient training provided by the hiring district or contractor, along with accompanying documentation, illustrating proficient school bus driving skills. If the district is unable to obtain documentation of previous school bus driver training, the individual shall complete the training requirements for new school bus drivers. If the applicant has gaps in excess of four years of school bus driving experience, the individual shall complete the training requirements for new school bus drivers.

### **Pupil Transportation Personnel File**

Each district that operates or contracts pupil transportation services shall cause to have filed for each school bus driver, in a secure area with limited access, the following information: (33-1506, 33-1508 and 33-1509, Idaho Code)

- Copy of original application to drive school bus.
- Copy of current physical examination with any applicable waivers.
- Record of all topic specific school bus driver training.
- Copy of current commercial driver's license.
- Copy of current permit to drive school bus.
- Copy of annual driving record check in compliance with CDL licensing requirements. The district shall request annually a driving record check report from the Idaho Transportation Department, Motor Vehicles Division, for those individuals who are going to drive a school bus during the current year.
- Copy of all driver and route evaluations.

### **Pupil Transportation Maintenance and Service Personnel**

Each district that operates or contracts pupil transportation services shall perform maintenance functions on a timely basis consistent with safe transportation and work environments. (33-1506, Idaho Code)

The SDE Pupil Transportation Section shall develop and maintain pupil transportation staffing guidelines designed to promote efficiency and cost containment.

### **VEHICLE OPERATION**

All school districts and school bus drivers must meet all operations and performance requirements in conformity with law and with rules and regulations of the Department of Law Enforcement and the State Board of Education (33,1508, Idaho Code). The Board of Trustees or its designee shall be responsible for delineating in writing vehicle operations and the duties of bus drivers, which shall include the following:

- The driver shall ensure the safe condition of the school bus by conducting an initial and thorough daily pre-trip school bus inspection, which shall follow the basic CDL pre-trip inspection procedures for a school bus. The district shall provide drivers with a pre-trip inspection form. The State Department of Education shall develop and maintain a model pre-trip inspection form using nationally recognized criteria for the school bus pre-trip inspection. Each subsequent trip shall require an additional pre-trip school bus inspection, which at a minimum shall ensure that all safety equipment is in working

order, i.e., brakes, tires, lights, steering and horn. All defects shall be reported by the school bus driver.

- A school bus shall be backed only as a last resort. Buses shall not back to turn around on a public roadway, unless the local board finds there is no alternative to backing buses on certain roads. The local board then, by official action, may allow backing of school buses on certain public roadways.
- No passenger shall be permitted to operate the school bus.
- The school bus driver shall not allow guns or inflammable or explosive substances such as gasoline to be carried on a school bus. School districts shall develop policy identifying other perceived unsafe items prohibited from being transported in the passenger compartment of a school bus, such as skis, skateboards, large instruments, etc. Students are to only carry objects on to the bus that can fit safely within the seat compartment, preferably on the student's lap. The student shall not carry hazardous materials, objects, or potentially disruptive animals on the bus.
- School bus drivers shall properly wear a seat belt whenever the bus is in motion.
- School bus doors shall remain closed while the bus is in motion. No school bus shall start in motion before all passengers have been seated. The driver shall require each passenger on the bus to be seated in a manufacturer's school bus passenger seat. No student shall be allowed to stand while the bus is in motion.
- School districts shall establish school bus stops in safe locations with at least one hundred (100) yards clear visibility in both directions, whenever possible, and at least forty (40) feet from intersections, whenever possible. No bus stop shall be established less than one and one-half (1 1/2) miles from the nearest appropriate school except when, in the judgment of the Board of Trustees, the age or health or safety of the pupil warrants. (Sections 33-1501 and 33-1502, Idaho Code)
- All school buses shall stop to load/unload passengers at designated bus stops in accordance with the law (49-1422, Idaho Code). The State Department of Education shall maintain model student loading/unloading training curriculum, the basis of which shall be in conformity with nationally recognized procedures (National School Transportation Specifications & Procedures). The student shall not leave or board the bus at locations other than the assigned home stop or assigned school unless arrangements for doing so have been approved by appropriate authority.
- School bus drivers shall load and unload from the right side of the roadway. School bus drivers shall not allow students to cross roadways having more than three (3) lanes for purposes of loading or unloading and shall only load or unload students who live on the right side of such a roadway, except at locations having easily accessible traffic control signals. (49-1422, Idaho Code)

- When it is necessary for the student to cross the roadway, the driver shall require the student to cross ten (10) feet in front of the bus in accordance with state loading/unloading training procedures.
- School bus drivers shall report the license number of any vehicle, which violates any law endangering school children to his/her immediate supervisor (33-1509, Idaho Code).
- A driver on a school bus route shall not leave an occupied bus. In case of a breakdown the driver shall request assistance via two-way communication whenever possible. Otherwise, the driver should ask a passing motorist to make contact with the district, send a school bus aide or at least two responsible students to make contact with the district, or wait for help.
- Whenever it is necessary for the school bus driver to leave an unoccupied bus or leave the driver's seat, he/she shall shut off the motor, curb the wheels where appropriate, set the brakes and remove the ignition key.
- All school and activity buses shall stop at all railroad grade crossings in accordance with the law (33,1508; 49-648 and 49-649 Idaho Code). The State Department of Education shall develop and maintain railroad grade crossing training curriculum, the basis of which shall be in conformity with nationally recognized procedures (National School Transportation Specifications & Procedures).
- School districts shall limit on-duty and driving time of school bus drivers similar to the limitations imposed by the Federal Motor Carrier Safety Administration regulations for drivers of similar commercial motor vehicles. Drivers shall use FMCSA over-the-road hours-of-service trip logs, a trip agenda, or other trip documentation validating applicable driving hours on all out-of-district trips in excess of one-hundred (100) miles (FMCSA Regulations, Hours of Service of Drivers).
- At no time shall a driver exceed sixty-five (65) miles per hour or a lesser posted speed limit.

## **PUPIL MANAGEMENT**

Pupil management involves the combined effort of four groups of individuals. An effective program must have the support of the school district administration, school bus drivers, pupils, and parents. Each school district should institute a comprehensive pupil-management program that is designed to share the responsibility for pupil safety and well-being, as well as protecting the interests of all others involved in the program.

Every school district which operates a pupil transportation system shall have a written policy which sets forth the pupil's right to "due process" when disciplinary action is taken and defines the duties and responsibilities of students when taking advantage of pupil transportation. The duties and responsibilities of students and drivers defined in the district's written policies shall include the following: (33-512, Idaho Code)

- The school bus driver shall not remove any student from the bus for discipline reasons except at the school or the student's designated bus stop. A pupil picked up in the morning must be returned to the student's home bus stop unless other appropriate arrangements have been made that are in accordance with school district policy. School bus drivers are responsible for the proper management of pupils on the bus and must exercise this function in accordance with the written policies, procedures and instructions of school authorities. The school bus driver has complete responsibility and authority for the operation of his/her bus and care of his passengers.
- Each student shall be responsible for the safety of self and others.
- The student shall enter the bus with the least possible confusion, be seated and remain seated until the bus comes to a complete stop and the entrance door is opened. Students shall remain safely seated at all times while the bus is in motion.
- While inside, the student shall keep all parts of his/her body inside the bus.
- If it is necessary for the student to cross the roadway, the student shall cross ten (10) feet in front of the bus in conformity to State Department of Education loading/unloading training curriculum. The student shall load and unload the school bus in a safe and orderly fashion and at all other times avoid the school bus's danger zone (ten (10) feet around the bus). Hitching a school bus bumper ride is prohibited.
- The student is responsible for being on time for the bus.
- The student shall respond to the driver's requests promptly.
- The student shall wait at bus stops in a safe and orderly manner and avoid "horseplay."
- The student shall not use profane or unacceptable language or gestures while on the bus (33-1509, Idaho Code).
- The student shall not use or possess tobacco, alcohol or other controlled substances.
- The student shall not throw or pass objects on, from, or into the bus.
- The student shall demonstrate respect for self, peers and authority.

## **STUDENT ELIGIBILITY**

### **Eligible Students**

33-1501, Idaho Code. Transportation authorized. To afford more equal opportunity for public school attendance, the board of trustees of each district, including specially chartered school districts, shall, where practicable, provide transportation for the public school pupils within the district, and pupils resident within adjoining districts annually agreed to in writing by the

districts involved, under conditions and limitations herein set forth. Nonpublic school students may be transported, where practicable, when the full costs for providing such transportation are recovered. In approving the routing of any school bus, or in the maintenance and operation of all such transportation equipment, or in the appointment or employment of chauffeurs, the primary requirements to be observed by the board of trustees are the safety and adequate protection of the health of the pupils. Nothing herein contained shall prevent any board of trustees from denying transportation to any pupil in any school bus operated by or under the authority of said board, upon good cause being given, in writing, to the parents or guardian, or either of them, of such pupil. No board of trustees shall be required to provide transportation for any pupil living less than one and one-half (1 1/2) miles from the nearest appropriate school. A board of trustees may require pupils who live less than one and one-half (1 1/2) miles from the nearest established bus stop to walk or provide their own transportation to such bus stop. That distance shall be determined by the nearest and best route from the junction of the driveway of the pupil's home and the nearest public road, to the nearest door of the schoolhouse he attends, or to the bus stop, as the case may be. The board may transport any pupil a lesser distance when in its judgment the age or health or safety of the pupil warrants. A day care center, family day care home, or a group day care facility, as defined in section 39-1102, Idaho Code, may substitute for the student's residence for student transportation to and from school. School districts may not transport students between child care facilities and home. Student transportation between a child care facility and a school will qualify for state reimbursement providing that the child care facility is one and one-half (1 1/2) miles or more from the school to which the student is transported. To effectuate the public policy hereby declared, the board of trustees of any school district may purchase or lease, and maintain and operate school buses and vans, which vans shall not have a seating capacity in excess of fifteen (15) persons; may enter into agreements or contracts for the use of a charter bus or buses; may enter into contracts with individuals, firms, corporations or private carriers; or may make payments to parents or guardians, subject to the limitations herein provided, when transportation is not furnished by the district.

33-1502, Idaho Code. Bus routes - Non-transportation zones. The board of trustees of each school district may establish, and alter, bus routes and establish, and alter, non-transportation zones. Such routes and zones shall be determined for each year not later than the regular August meeting of the board; but nothing herein shall be construed as limiting the board in altering such routes or zones when change in the condition of the roads, or in the number of pupils being transported would justify such alteration. A non-transportation zone shall comprise an area of a school district designated by the board of trustees which is impracticable, by reason of sparsity of pupils, remoteness, or condition of roads, to serve by established bus routes. Whenever practicable, routes shall be so established that no bus stop shall be more than one and one-half (1 1/2) miles from the intersection of the driveway of the home of any pupil otherwise eligible for transportation and the nearest public road; except that no board of trustees shall be required to route school buses or other passenger equipment over any road not maintained as a part of a highway district, county, state or federal highway system, or by the state or national forest service; except, that the primary requirements to be observed by the board of trustees are the safety and adequate protection of the health of the pupils.



A pupil with disabilities who's Individualized Education Program (IEP) requires transportation is eligible for transportation as a related service (IDEA) under the Pupil Transportation Support Program regardless of distance from the school.

It is the aim of the State Department of Education, in keeping with the "inclusion" concept, to arrange transportation for the student with disabilities as closely as possible to that of the student without disabilities. Whenever possible, students with disabilities will ride with students without disabilities on regular routes.

Students who attend school at an alternate location as assigned by the local board of trustees may be expected to walk reasonable distances between schools (33-1501, Idaho Code). Transporting or shuttling students between schools or buildings in conjunction with non-reimbursable programs is a non-reimbursable expense and all such mileage shall be documented and tracked as non-reimbursable shuttle miles.

### **Ineligible Students**

An ineligible student shall be defined as any properly enrolled public school student who does not otherwise meet ridership eligibility by virtue of distance, age, health, or safety.

If a school district allows ineligible but properly enrolled public school students on a bus and their presence does not create an appreciable increase in the cost of the bus run, as determined by the State Department of Education (in computing to and from school state allocations), the district shall not be penalized.

Ineligible students may ride existing bus runs, and to and from an existing bus stop, on a "space available" basis provided that neither time, mileage, or other appreciable cost is added as a result of this service.

### **Non-Public (Private or Parochial) School Students**

The cost of transporting non-public school students must be deducted when submitting the transportation reimbursement claim. Each school district must recover the additional cost of transporting non-public school students, and in no event may that cost be determined to be zero (0). (Section 33-1501, Idaho Code)

### **Non-Student Rider**

A non-student rider shall be defined as any transported person who is not properly enrolled in a pre-K through twelve school program. Each school district must recover the additional cost of transporting non-students, except that dependent children of young mothers who are properly enrolled in a public school program, SDE pupil transportation staff, district supervisory personnel and/or administrators and aides may ride on to and from school bus routes. Other persons and teachers who have officially been appointed as chaperones may be allowed on a school bus for field and extracurricular trips. If the local district policy allows, exceptions may be made for passengers other than properly enrolled school students to ride the bus when special

circumstances exist and space is available. An appropriate authority must give prior permission before non-students may ride.

**No eligible transported student is to be displaced or required to stand in order to make room for an ineligible, non-public, or non-student rider.**

## **PUPIL TRANSPORTATION SUPPORT PROGRAM - FINANCIAL REPORTING**

Each school district operates motor vehicles of many sizes and types, such as school buses, small and large trucks, cars for administration and driver education, pickups, delivery vans, and other miscellaneous small motor vehicles. All school district vehicle operating costs must be charged to the appropriate individual account or accounts according to their use. Costs for transporting eligible students to and from school shall be accounted for separately in accordance with State Board of Education approved procedures. (33-1006, Idaho Code)

All pupil transportation expenses are to be recorded under program codes 681, 682, or 683 in object codes 100-800 as listed below. Accurate mileage records shall be kept for reimbursable and non-reimbursable programs so eligible and non-eligible miles can be accurately determined. No indirect costs are allowed. Financial supporting documents shall be maintained throughout the fiscal year for each of these program categories for audit purposes:

- (100) Salaries
- (200) Employee Benefits
- (300) Purchased Services
- (400) Supplies and Materials
- (500) Capital Outlay
- (700) Property Loss Insurance (garage only)

Each school district that operates a school transportation system will maintain accurate records of operations including runs, run mileage, categorized bus mileage, student rider counts and other related costs on uniform record-keeping forms provided by the Department of Education. Information will be made available to the Department of Education for audit purposes upon request. Information will be compiled and retained for a minimum of four (4) years, including the current fiscal year, in the following areas: (Section 33-1006, Idaho Code)

The State Department of Education will develop and maintain a Reimbursement Matrix that will be presented to the State Board of Education for approval as necessary.

### **Administrative and Program Operation Costs**

The school district administrative reimbursement will be seven and one half percent (7.5%) of all approved reimbursable operation costs for transporting pupils except administration costs, depreciation, and contracted services, as reported to the State Department of Education on the Annual Pupil Transportation Claim for Reimbursement (Schedule B); or

Actual administrative costs, program operation costs, operation of plant, maintenance of plant, fixed costs, and other pupil transportation costs identified in 33-1006, Idaho Code, which are directly related, charged and reported as transportation costs to the State Department of Education on the Annual Pupil Transportation Claim for Reimbursement (Schedule A).

Districts will be permitted flexibility in scheduling bus routes; however, before-school and after-school activity or other program busing that results in duplicating transportation service to an area is not reimbursable, except that the Idaho Reading Initiative (IRI) shall be reimbursable under the Pupil Transportation Support Program. Transportation costs for other before-school and after-school academic programs may be reimbursable and will be considered on a case-by-case basis when specific requests are submitted to the State Department of Education on or before March 30 of the school year in which the busing began.

All academic and activity summer programs will be non-reimbursable under the Pupil Transportation Support Program, except transportation costs for Migrant Summer School, the Idaho Reading Initiative (IRI), and Extended School Year (ESY) Special Needs programs will be reimbursable.

The State Department of Education shall develop support staff (supervisor, driver trainer, secretary/dispatcher, etc.) and school bus inventory guidelines for pupil transportation operations.

The district will maintain accurate records of all bus routes and runs, including rider counts, mileage and other related operation and vehicle maintenance costs (33-1006, Idaho Code). A “route” is defined as anything one bus does during the morning, midday, or afternoon and is comprised of one or more morning, midday, or afternoon to –from school “runs.” Rider counts will be taken a minimum of once per academic term and averaged.

If the local board of trustees authorizes the use of school buses to transport students to and from school-sponsored activities or field trips, the local board will use school buses that are in safe mechanical condition. No school bus shall be operated, loaded, or equipped in such a way as to constitute a hazard to the safety of the pupils being transported. School bus emergency egress systems shall remain operable and the bus aisle shall remain clear of obstruction while pupils are being transported. (33-1506, Idaho Code)

If the local board of trustees authorizes the use of non-conforming vehicles to transport students to and from school-sponsored activities or field trips, the local board will use vehicles that are in safe mechanical condition. No non-conforming vehicle shall be operated, loaded, or equipped in such a way as to constitute a hazard to the safety of the pupils being transported.

The district shall maintain accurate records of all trips in all school buses and non-conforming vehicles used in the transportation of students, including the purposes of the trip, mileage and operation and vehicle maintenance costs. An annual odometer reading will be taken at the end of each fiscal school year (June 30) on all district owned vehicles used in the transportation of pupils. The district shall reconcile annual mileage reports with all recorded reimbursable and non-reimbursable program miles. School districts that contract for pupil transportation services

shall report all reimbursable and non-reimbursable program miles. The district shall maintain accurate mileage records of all trips in all district owned non-conforming vehicles used for shuttling school bus drivers to and from their school buses for purposes of efficiency and cost containment.

Field trips will be reimbursable when they are approved school activities that are an integral part of the total education program, are class-curriculum driven, occur during the regular school year and extend not more than one hundred (100) miles beyond the boundaries of the state. Field trips that are for performance, social, recreational, competition, or reward purposes are not reimbursable, except that a non-competitive, in-district performance event shall be reimbursable. The costs of transporting athletes or students to and from extracurricular activities are not reimbursable.

The following activities which are under the jurisdiction and sponsorship of the Idaho High School Activities Association will not be reimbursable including, but not limited to: baseball, basketball, cross-country, debate, drama, drill team, football, golf, instrumental music, soccer, softball, speech, tennis, track, vocal music, volleyball, and wrestling. In addition to these, any other school activity that is scheduled and held for competition purposes is not reimbursable.

### **Safety Busing**

All school districts submitting applications for new safety busing reimbursement approval shall establish a board policy for evaluating and rating all safety busing requests and shall have on file a completed measuring instrument for all submitted requests. The State Department of Education staff shall develop and maintain a measuring instrument model, which shall include an element for validating contacts with responsible organizations or persons responsible for improving or minimizing hazardous conditions. All measuring instruments shall have State Department of Education approval prior to district implementation. Each applying district will be required to annually affirm that conditions of all prior approved safety busing requests are unchanged. The local board of trustees shall annually (33-1502, Idaho Code) submit the minutes approving all new safety busing locations, along with the applicable measuring instrument, to the State Department of Education. School districts that receive state reimbursement of costs associated with safety busing will re-evaluate all safety busing sites at intervals of at least every three years using the approved measuring instrument. In order to qualify for reimbursement the local school board will, by official action, approve the initial safety busing request and allow the students in question to be transported before the application is sent to the state. Consideration for reimbursement will be contingent on the application for new safety busing and supporting measuring instrument being received by the State Department of Education Transportation Section on or before March 30 of the school year in which the safety busing began.

### **Contract For Transportation Services**

Any district that contracts for pupil transportation services will have a copy of its current contract on file with the State Department of Education, Supervisor of Transportation Services (Section 33-1510, Idaho Code). The State Department of Education shall develop and maintain a model contract.

School districts that contract pupil transportation services will report actual contractual costs to the State Department of Education on the Annual Pupil Transportation Claim for Reimbursement (Schedule C). Specific district costs related to administrative salaries and benefits, purchased services, supplies, etc. reflected as part of the contract will be reported as non-reimbursable contract costs. The State Department of Education will consider certain district operational costs related to the transportation contract as reimbursable. Requests for reimbursement of specific operational costs must be received no later than March 30 for the fiscal year the costs were incurred.

School districts that contract pupil transportation services and operate a district-owned pupil transportation program may submit specific costs related to district salaries benefits, purchased services, supplies, etc. (Schedule A or Schedule B) when the costs can be reconciled to district-owned and operated school buses.

### **Leasing District-Owned Buses**

School districts will develop and use a policy approved by the local board of trustees delineating responsibility and use of rental or leased buses. Any costs to the district will not be reimbursable under the Transportation Support Program. Districts will maintain liability insurance coverage on rented or leased buses. Districts will maintain accurate records on all district-owned leased buses, including mileage, to whom leased and revenues received. (Section 33-1512, Idaho Code)

### **Ineligible Vehicles**

Costs incurred when transporting pupils in any vehicle that does not meet all State Board of Education, state and federal standards for a school bus will not be reimbursable within the Transportation Support Program, except as permitted in 33-1006, Idaho Code.

### **Liability Insurance**

Every policy, contract of insurance, or comprehensive liability plan for each local school district-owned or each contract-owned school bus will provide that the insurance carrier pay on behalf of the insured local school district or contractor to a limit of no less than five hundred thousand dollars (\$500,000) per person limited to three million dollars (\$3,000,000) for bodily injury, death, or property damage or loss as the result of any one (1) occurrence or accident, regardless of the number of persons injured or the number of claimants. (Section 33-1507, Idaho Code)

### **Non-Traditional Educational Programs**

Costs of transporting students for purposes of accessing alternate, special or unique educational programs outside normal school hours or outside the normal school year are not reimbursable; however, districts will not be financially penalized when incorporating the transportation of ineligible student riders into an existing regular, ESY, IRI and/or summer migrant education run and there is no subsequent appreciable increase in the allocation of transportation resources.

## Capital Investment

Purchase of school buses with approved reimbursable options and two-way radios installed in a bus will be the only capital investment items allowed in the reimbursement program. Reasonable cellular telephone basic service contract costs and reasonable repeater contract costs are reimbursable. No more than two (2) basic service contracts will be allowed per school district. Reimbursement for basic service contract costs in excess of two (2) must have prior approval. Cellular telephone, additional cellular airtime, roaming and long distance charges are non-reimbursable costs.

## Depreciation

The purchase date for purposes of depreciation is determined to be July 1 of the state fiscal year in which the bus is delivered. Buses will be placed on a depreciation schedule after they have been inspected by personnel from the State Department of Education. When a bus is sold or traded prior to its life expectancy according to the district's SDE generated depreciation schedule, the district shall forfeit an amount equal to total depreciation received, minus depreciation calculated at straight-line method, plus fifty-percent (50%) of the projected depreciation amount for the year in which the bus is sold or traded.

**EXAMPLE #1:** Original Purchase Price on Depreciation Schedule (12yr bus)     \$72,750

Total Depreciation Received at Accelerated Method (1yr)	12,127
Depreciation at Straight-Line Method ( $\$72,750/12 \times 1$ )	<u>- 6,063</u>
Sub Total	6,065
Fifty-Percent of Current Year's Depreciation	<u>5,053</u>
Forfeit Amount	11,118

**EXAMPLE #2:** Original Purchase Price on Depreciation Schedule (12yr bus)     \$72,750

Total Depreciation Received at Accelerated Method (8yrs)	55,836
Depreciation at Straight-Line Method ( $\$72,750/12 \times 8$ )	<u>-48,500</u>
Sub Total	7,336
Fifty-Percent of Current Year's Depreciation	<u>1,410</u>
Forfeit Amount	8,746

Before any newly acquired school bus is used for transporting pupils it shall be inspected by a duly authorized representative of the State Department of Education. (33-1506, Idaho Code)

## Depreciation Ineligibility

Any used school bus purchased by a district will not be eligible for depreciation if the bus is over five (5) years old, (using the body manufacturer's date). Used school buses new to the State no older than five (5) years will be placed on the district's depreciation schedule, using an accelerated declining balance method of calculating depreciation, which shall include a percentage rate equal to one (1), divided by the remaining life expectancy of the bus (according to its life expectancy category), multiplied by two (2).

## **Standards**

In order to be eligible for depreciation and operation costs a school bus must meet all federal and Idaho minimum construction standards and State Board of Education standards. Further, the bus shall be assigned and used daily on to and from school routes, except that new buses purchased for spare, activity and field trip purposes may be placed on the district's depreciation schedule if they are also used on to -from school routes. The maximum number of spare, activity and field trip buses (buses not consistently assigned to –from school routes) allowed for purposes of depreciation reimbursement will be one-tenth percent (0.001) of the district's average daily attendance (ADA) rounded up.

## **Retrofit Standards**

Any vehicle that has been retrofitted to be used as a school bus will meet current federal and Idaho minimum construction standards and State Board of Education standards.

Any school bus that undergoes a partial retrofit will meet current federal and Idaho minimum construction standards and State Board of Education standards applicable to the retrofitted parts.

## **Size Categories**

All school buses will be categorized by size as follows: eighty-five (85) students and up, seventy-three to eighty-four (73-84) students, fifty-nine to seventy-two (59-72) students, forty-seven to fifty-eight (47-58) students, thirty-five to forty-six (35-46) students, twenty to thirty-four (20-34) students, and one to nineteen (1-19) students.

## **Life Expectancy**

For depreciation purposes, all school buses will be categorized according to their life expectancy as follows: ten-year (10) depreciation, twelve-year (12) depreciation, and fifteen-year (15) depreciation. Using construction data supplied by the manufacturers, the Department of Education will compile a list of buses each year that would fall into each of the three depreciation categories. Activity and lift-equipped buses will be categorized for purchase and depreciation purposes as if they had full seating capacity. The cost of the lift will not be included when calculating the high-low mean price of buses in each category; however, the cost of the lift will be included in the total cost for depreciation purposes. The cost of activity bus options (e.g., air conditioning, partially reclining passenger seats, etc.) will not be included when calculating the high-low mean price of buses in each category and will not be included in the total cost for depreciation purposes. Beginning with buses purchased after July 1, 2002, the previous year high-low mean cost will be calculated for both gas- and diesel-powered buses according to size and life expectancy. Whenever the high-low mean in any category exceeds the high-low mean in the next higher category or whenever bus purchases in the category are fewer than three, the State Department of Education will adjust that category's high-low mean subsequent to national pricing trends and input from the Pupil Transportation Steering Committee. Buses will then be

placed on the depreciation schedule with the cost of buses reimbursed up to one hundred ten percent (110%) of the category high-low mean for the previous year.

### **Ten-year (10) depreciation**

The school bus depreciation schedule, within the allowable costs of the Pupil Transportation Support Program, for school buses with life expectancy of ten (10) years, that were purchased subsequent to July 1, 1992, will be determined by using an accelerated declining balance method for calculating depreciation (declining balance schedule to include a percentage rate of twenty percent (20%) per year for useful life expectancy of ten (10) years). (Section 33-1006, Idaho Code)

### **Twelve-year (12) depreciation**

The school bus depreciation schedule within the allowable costs of the Foundation Transportation Program, for school buses with life expectancy of twelve (12) years, that were purchased subsequent to July 1, 1992, will be determined by using an accelerated declining balance method of calculating depreciation (declining balance schedule to include a percentage rate of sixteen and sixty-seven hundredths percent (16.67%) per year for useful life expectancy of twelve (12) years). (Section 33-1006, Idaho Code)

### **Fifteen-year (15) depreciation**

The school bus depreciation schedule within the allowable costs of the Foundation Transportation Program, for school buses with life expectancy of fifteen (15) years that were purchased subsequent to July 1, 1992, will be determined by using an accelerated declining balance method of calculating depreciation (declining balance schedule to include a percentage rate of thirteen and thirty-three hundredths percent (13.33%) per year for useful life expectancy of fifteen (15) years). (Section 33-1006, Idaho Code)

### **Purchase Price**

The purchase price of each bus will include the total chassis, body, special equipment, freight costs, pre-delivery inspection fees and any other costs directly related to acquiring the bus. Costs of non-essential options, as identified in Standards for Idaho School Buses and Operations, will be subtracted for purposes of calculating the district's reimbursable bus depreciation. (33-1006; 33-1506, Idaho Code)

The purchase amount of the school bus that will be placed on the state depreciation schedule for purposes of reimbursement and calculation of the high-low mean will be the lowest bid quotation received from dealers who meet specifications as established by the local school district. Districts will provide verification of bid prices. Any or all bid quotations may be rejected by the school district; however, all bid prices will be evaluated and adjusted as necessary by the State Department of Education Pupil Transportation Section with recommendations for adjustment from the Pupil Transportation Steering Committee. The lowest responsive and responsible bid



will be used in calculating the district's depreciation reimbursement. Verifiable differences in school bus construction quality may be justification for rejection.

### **School Bus Delivery Costs**

FOB district bus delivery costs reflected in school district bid specifications and the subsequent vendor invoice will be considered part of the bus purchase price for purposes of depreciation reimbursement. Costs for transporting school buses from the body factory to the home school district by school district personnel while in the employ of the district will be calculated by using allowable mileage and meal rates established by the Idaho State Board of Examiners and will also include reasonable lodging rates and nights. Travel from the home school district to the factory will be considered non-reimbursable costs.

Districts will not report any new school bus delivery mileage on the Pupil Transportation Reimbursement Claim form. Districts will record the initial mileage on all new school buses delivered to the district and will track and record all subsequent mileage for purposes of reimbursement.

### **Nonreimbursable Costs**

No finance charges, leases, rent, or interest will be included in the purchase price. These are not reimbursable costs on the depreciation schedule.

### **Inoperable Bus**

Any school bus that is wrecked, sold, inoperable, or for any other reason does not or cannot meet all federal, state and State Board of Education construction and operational standards will be removed from the depreciation schedule.

### **Depreciation Account**

All school bus depreciation revenue received by school districts from the state will be placed into a separate account and used only for the purchase of school buses. Any revenue received by the school district subsequent to the sale of any used school bus will be placed into a separate account and used only for the purchase of school buses. Trade-in values will not be subtracted from the purchase price of the new bus for purposes of depreciation reimbursement.

### **COMMERCIAL COMPUTERIZED ROUTING AND SCHEDULING**

Costs for commercial computerized routing and scheduling will be permitted within the allowable administrative costs when computing the Transportation Support Program as subject to approval of the State Department of Education Pupil Transportation Section. Specific requests by districts must be submitted in detail and approved prior to July 1 of the school year in which the service is to be provided. Consideration will be on a district-by-district basis. Ineffective or non-productive use of computerized routing and scheduling software, as determined by the State Department of Education, may result in non-reimbursement of related costs. Access to "read-

only" files by SDE pupil transportation staff for purposes of evaluating effectiveness of software will be an element of consideration in determining reimbursement approval.

***REFERENCED APPENDIXES WILL BE INCLUDED HERE***

## **B. SUBJECT:**

### **Order to Transfer Property from Shoshone Joint School District No. 312 to Dietrich School District No. 314**

## **BACKGROUND:**

The State Department of Education received a petition submitted under the provisions of § 33-308 to transfer approximately 24 square miles of land from Shoshone Joint School District No. 312 to Dietrich School District No. 314. Pursuant to rules adopted by the State Board, the Department of Education appointed a hearing officer. A hearing was held on May 2, 2000, and the hearing officer recommended that the petition be approved and an election held. The State Board of Education at its meeting on November 17, 2000, remanded this matter to the hearing officer to review three issues. The hearing officer's comments were submitted for the Board's March meeting. The State Board of Education at its meeting on March 22, 2001, directed the Department of Education to draft a letter to both school districts asking them to research the potential financial impact of transferring federal lands in light of new federal legislation. The districts' responses were presented for the Board's April meeting. The State Board of Education at its meeting on April 20, 2001, accepted the hearing officer's initial recommendation. An election was held on June 12, 2001, and the official results of the canvass, as certified by the Clerk of Lincoln County, show that the issue passed.

## **DISCUSSION:**

The Department of Education has prepared an Order for the Board President's signature with the following three points:

1. That the following property be excised from Shoshone Joint School District No. 312 and annexed to Dietrich School District No. 314:

Beginning at the SW corner of Sec. 32, T 7 S, R 21E; thence east approximately 3 miles to the SE corner of Sec. 34, said township and range; thence north approximately 6 miles to the NE corner of Sec. 3, said township and range; thence east approximately  $\frac{3}{4}$  mile to the SE corner of Sec. 33, T 6 S, R 21 E; thence north approximately 3 miles to the NE corner of Sec. 21, said township and range; thence west approximately 1 mile to the NW corner of said Sec. 21; thence north approximately  $\frac{1}{4}$  mile to the NE corner of the SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  Sec. 17, said township and

range; thence west approximately  $\frac{1}{4}$  mile to the NW corner of the SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  of said Sec. 17; thence south approximately  $\frac{1}{4}$  mile to the SW corner of the SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  of said Sec. 17; thence west approximately  $1\frac{3}{4}$  miles to the NW corner of Sec. 19, said township and range; thence south approximately  $2\frac{1}{2}$  miles to the W  $\frac{1}{4}$  corner of Sec. 31, said township and range; thence east approximately  $\frac{3}{8}$  mile to the SE corner of Lot 5 of said Sec. 31; thence north approximately  $\frac{1}{4}$  mile to the NE corner of the SW  $\frac{1}{4}$  NW  $\frac{1}{4}$  of said Sec. 31; thence east approximately  $\frac{1}{2}$  mile to the SW corner of the NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  of said Sec. 31; thence south approximately  $1\frac{1}{2}$  miles to the SW corner of the NW  $\frac{1}{4}$  SE  $\frac{1}{4}$  of Sec. 4, Twp. 7 S, R 21 E; thence east approximately  $\frac{1}{2}$  mile to the SE corner of the NE  $\frac{1}{4}$  SE  $\frac{1}{4}$  of said Sec. 4; thence south approximately 1 mile to the NE corner of the SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  of Sec. 9, said township and range; thence west approximately  $\frac{1}{2}$  mile to the NW corner of SW  $\frac{1}{4}$  SE  $\frac{1}{4}$  of said Sec. 9; thence north approximately  $\frac{1}{4}$  mile to the middle of said Sec. 9; thence west approximately  $\frac{1}{4}$  mile NW corner of the NE  $\frac{1}{4}$  SW  $\frac{1}{4}$ ; thence north approximately  $\frac{1}{2}$  mile to the NE corner of the NW  $\frac{1}{4}$  NW  $\frac{1}{4}$  of said Sec. 9; thence west approximately 1 mile to the NW corner of the NE  $\frac{1}{4}$  NW  $\frac{1}{4}$  of Sec. 8, said township and range; thence south approximately  $\frac{1}{4}$  mile to the SW corner of the NE  $\frac{1}{4}$  NW  $\frac{1}{4}$  of said Sec. 8; thence west approximately  $\frac{1}{4}$  mile to the NW corner of the SW  $\frac{1}{4}$  NW  $\frac{1}{4}$  of said Sec. 8; thence north approximately  $\frac{1}{4}$  mile to the NE corner of Sec. 7, said township and range; thence west approximately  $\frac{1}{2}$  mile to the N  $\frac{1}{4}$  corner of said Sec. 7; thence south approximately 1 mile to the S  $\frac{1}{4}$  corner of said Sec. 7; thence east approximately 1 mile to the S  $\frac{1}{4}$  corner of Sec. 8, said township and range; thence south approximately  $\frac{1}{2}$  mile to the middle of Sec. 17, said township and range; thence east approximately  $1\frac{1}{2}$  miles to the W  $\frac{1}{4}$  corner of Sec. 15, said township and range; thence south approximately  $\frac{1}{2}$  mile to the SW corner of said Sec. 15; thence west approximately  $1\frac{1}{2}$  miles to the S  $\frac{1}{4}$  corner of Sec. 17, said township and range; thence north approximately  $\frac{1}{4}$  mile to the NE corner of the SE  $\frac{1}{4}$  SW  $\frac{1}{4}$  of said Sec. 17; thence west approximately  $\frac{1}{4}$  mile to the NW corner of the SE  $\frac{1}{4}$  SW  $\frac{1}{4}$  of said Sec. 17; thence south approximately  $\frac{1}{4}$  mile to the SW corner of the SE  $\frac{1}{4}$  SW  $\frac{1}{4}$  of said Sec. 17; thence west approximately  $\frac{1}{4}$  mile to the NW corner of Sec. 20, said township and range; thence south approximately 3 mile to the SW corner of Sec. 32, T 7 S, R 21 E, the point of beginning.

2. That this order shall be effective on September 1, 2001.
3. That the State Department of Education shall issue a notice to the State Tax Commission, the Lincoln County Commissioners, the Shoshone School District and the Dietrich School District that such boundary change has been ordered by the Board effective September 1, 2001.

### **RECOMMENDATIONS:**

The State Board of Education approve the Order prepared by the Department of Education.

**BOARD ACTION:**

The State Board carried to approve/disapprove/table the Order to transfer property. It was moved by \_\_\_\_\_, seconded by \_\_\_\_\_, and carried.

**C. SUBJECT:**

Proposals to Rezone Payette Joint School District No. 371, Post Falls School District No. 273, and Murtaugh Joint School District No. 418

**BACKGROUND:**

Idaho Code 33-313 states that following the release of the decennial census data each school district board of trustees shall prepare a proposal to equalize the population of their trustee zones. It also states that the boundaries of the trustee zones in each school district shall be defined and drawn so that, as reasonably as may be, each such zone shall have approximately the same population. These proposals must be submitted to the State Board for approval.

**DISCUSSION:**

The Department of Education has made a review of the proposals, including legal descriptions and maps. The populations of the proposed zones have been equalized to within the 10 percent range established by Department of Education policy. The materials are in compliance with requirements of Idaho Code.

**RECOMMENDATION:**

It is recommended the State Board of Education approve the proposals.

**BOARD ACTION**

It was carried to approve/disapprove/table the proposal by Payette Joint School District No. 371 to redefine their trustee zones. Moved by \_\_\_\_\_, seconded by \_\_\_\_\_, and carried.

It was carried to approve/disapprove/table the proposal by Post Falls School District No. 374 to redefine their trustee zones. Moved by \_\_\_\_\_, seconded by \_\_\_\_\_, and carried.

It was carried to approve/disapprove/table the proposal by Murtaugh Joint School District No. 418 to redefine their trustee zones. Moved by \_\_\_\_\_, seconded by \_\_\_\_\_, and carried.

#### **D. SUBJECT:**

##### **Presentation of the Public School Budget for FY 2003**

#### **BACKGROUND:**

For the last quarter century, the Public School Coalition has met with the State Superintendent of Public Instruction to develop a public school funding budget request. "Membership" has changed over the years, but the core group – representing school administrators, parents, teachers, and elected school trustees – has remained intact. To prepare the FY 2003 request, the coalition met several times during the spring and summer, joined by representatives of the Office of the Governor, Legislative Budget Office, Division of Financial Management, Office of the State Board of Education, Idaho Tax Commission, and other related interests, to discuss and make specific budget recommendations to Dr. Howard. The FY 2003 Public Schools Budget Request is based on those recommendations.

#### **DISCUSSION:**

Mr. Tim Hill, Bureau Chief for Finance, Department of Education, will present a description of the budget and will be joined by spokespersons for teachers, parents, school administrators, and district trustees.

#### **RECOMMENDATION:**

The Department of Education recommends that the State Board of Education endorse and support the FY 2003 Public Schools Budget Request as submitted by the Public School Coalition.

#### **BOARD ACTION:**

The State Board of Education endorses the request by Superintendent of Public Instruction Marilyn Howard, and the Public School Coalition, for the Public Schools Budget Request for FY 2003 as submitted. Moved by \_\_\_\_\_, seconded by \_\_\_\_\_, and carried.

#### **ATTACHMENTS:**

1. FY 2003 Public Schools Support Budget Request



1	STATE APPROPRIATION	2001-2002	2002-2003
a	General Account	\$869,469,800	\$990,192,800
b	Property Tax Replacement	63,500,000	67,800,000
c	Dedicated Accounts	55,175,000	55,175,000
d	Cigarette and Lottery Taxes	4,700,000	4,700,000
	TOTAL REVENUES	\$992,844,800	\$1,117,867,800
2	PROGRAM DISTRIBUTION		
a	Property Tax Replacement	\$64,594,680	\$67,800,000
b	Transportation	54,391,000	58,742,300
c	Border Contracts	1,000,000	1,000,000
d	Exceptional Contracts and Tuition	2,500,000	2,625,000
e	Floor	1,200,000	1,100,000
f	Program Adjustments	300,000	300,000
g	Salary-based Apportionment	654,673,700	743,510,900
h	Governor's Initiative - Teacher Incentive Award	418,000	560,000
i	State Paid Employee Benefits	115,117,000	130,617,200
j	Early Retirement Payout	3,500,000	3,500,000
k	Substance Abuse	4,700,000	4,700,000
	Building Student Success:		
l	Technology Grants	10,400,000	12,400,000
m	Grants-Innovative Teacher	425,000	545,000
n	Idaho Reading Initiative	4,000,000	4,000,000
o	Limited English Proficient (LEP)	4,575,000	4,475,000

p	Extended Day Kindergarten	0	4,500,000	
q	Idaho Digital Learning	0	750,000	
	Professional Development:			
r.	Least Restrictive Environment (Teacher Training)	1,000,000	1,000,000	
s.	Gifted and Talented (Teacher Training)	600,000	500,000	
t.	Achievement Standards Implementation (Phase I, II)	8,000,000	8,000,000	
u	Annual Contract Support Program	2,000,000	2,000,000	
	TOTAL DISTRIBUTIONS	\$933,394,380	\$1,052,625,400	
3	NET STATE FUNDING AVAILABLE	\$59,450,420	\$65,242,400	
4	SUPPORT UNITS	12,575.0	12,700.0	
5	NET STATE FUNDING PER SUPPORT UNIT (includes \$300 for Safe Environment Provisions)			\$5,137.20
6	EQUALIZATION Adjusted Market Value	\$64,593,411.219	\$67,800,000.000	
	Urban renewal	1,203,635,610	1,384,180,000	
	Rural Electric Association (REA)	150,000,000	150,000,000	
	Mines Net Profit Decrease	0	0	
	Total Market Value	\$65,947,046,829	\$69,334,180,000	
	Equalization Rate X	0.004	X 0.004	
	Total Equalization	\$263,788,187	\$277,336,720	

	District Taxes not Equalized	(11,500,000)	(12,000,000)	
7	NET EQUALIZATION	\$252,288,187	\$265,336,720	
8	NET EQUALIZATION PER SUPPORT UNIT	\$20,062.68	\$20,892.66	
9	DISTRIBUTION FACTOR	<u>\$24,790.35</u>	<u>\$26,029.86</u>	

**E. SUBJECT:**

**Achievement Standards Update**

**F. SUBJECT:**

**Superintendent's Report**